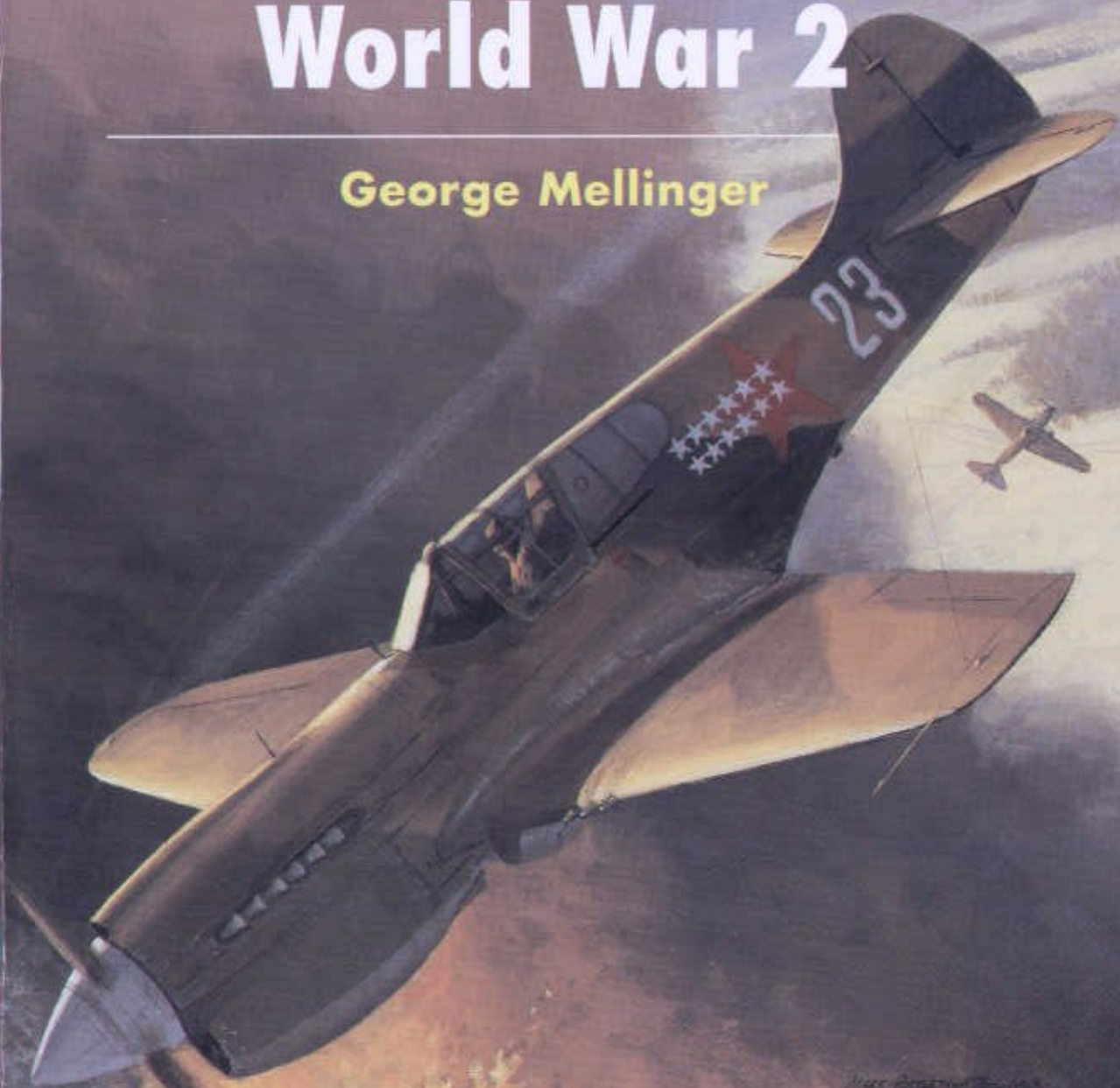


★ OSPREY AIRCRAFT OF THE ACES® • 74 ★

Soviet Lend-Lease Fighter Aces of World War 2

George Mellinger



Mark Bennett

GEORGE MELLINGER is a member of the Twin Cities Aero Historians, a group which has been in existence for over three decades, and which has produced several other internationally known aviation authors. He is also an associate of the Russian Aviation Research Group. This is his fourth book for Osprey.

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SERIES EDITOR: TONY HOLMES

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Front cover

At dusk on 26 December 1942, leading 436 IAP (Fighter Aviation Regiment) ace Lt Nikolai Kuznetsov was part of a formation of six P-40Ks on a fighter escort mission for eight Il-2s sent to attack troop reserves in the beleaguered German stronghold of Velikiye Luki. Boasting a vital rail junction, the latter town, which was now totally surrounded by Soviet troops, had been the *Wehrmacht's* most important defensive base in the Central Sector.

On their way to the target, the Soviet fighter pilots easily chased off a group of Bf 109s that attempted to intercept the *Sturmoviks*, but on the formation's return flight they were again attacked by German fighters. This time the Bf 109s and newly-arrived Fw 190s succeeded in penetrating the 436 IAP formation and pressed home their attacks on the vulnerable Il-2s, which in response started to manoeuvre into a defensive circle (counter-clockwise) at a height of just 300 metres above the snow-covered pine forests. Seven of the *Sturmoviks* made it into the formation, but the eighth aircraft, which had been damaged by flak over the target, was struck by several cannon shells from a pursuing Bf 109 as it attempted to close the circle. Seeing his comrade in trouble, Kuznetsov immediately went to his aid, as he recalled in his post-mission report:

The Messerschmitts continued to attack the *Sturmoviks*, not allowing them to close their circle. My machine's engine was at full power and maximum speed, but it seemed that my aircraft approached the enemy only very slowly. The German suddenly opened fire on one of the straggling Ilyushins. Recognising the danger, the Il-2 pilot made a sharp left bank in order to reduce the distance and catch up to the other Ilyushins, thereby closing the circle. The "Messer" turned directly after him, preparing to fire, but then the fascist blundered right into my gunsight. I fired a long stream of tracers into the cabin and the "Messer" tumbled earthward.

The *Sturmoviks'* circle closed at an altitude of 300 metres, but the German fighters, vexed by their losses, continued to fling

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themselves at the bombers from all sides. However, they no longer posed a great danger to the Il-2s. Soon, the Germans gave up the fight and withdrew. The damaged *Sturmovik* made it to the forward area and force-landed in our territory. The rest returned to their airfield at low level, supported all the way home by our fighters.'

Upon returning to base, Lt Kuznetsov reported the successful completion of his mission and was credited with the destruction of

a Bf 109. This kill took his tally to 26 victories (14 individual and 12 shared), and earned Kuznetsov the congratulations of his regiment commander. The latter duly noted that the ace had scored his 26th kill on his 26th birthday, and on the 26th day of the month! That evening in the 436 IAP mess, Nikolai Kuznetsov was presented with a huge cake marked with the chocolate figures '26-26' (Cover artwork by Mark Postlethwaite)

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HURRICANES FOR RUSSIA

Prior to the outbreak of World War 2, a number of western European governments had begun placing contracts with US aircraft manufacturers for virtually any military types to be had, and the number of these contracts grew rapidly following the German invasion of Poland. The US government, observing strict rules of neutrality, sanctioned these deals on literally a 'cash-and-carry' basis.

However, many of these contracts could not be fulfilled before the *Blitzkrieg* effectively saw much of western Europe fall into German hands by the summer of 1940. Indeed, a number of these outstanding orders were taken up by the British Direct Purchase Commission, which was desperate to find aircraft that could help bolster the ranks of the Royal Air Force (RAF) and Fleet Air Arm, which were now left alone to fight the might of the Luftwaffe. The British were initially very grateful to receive literally hundreds of Hawk H-81 (which it christened the Tomahawk I) and P-39 Airacobra fighters, as well as other combat aircraft types such as Maryland and Boston bombers.

In March 1941 the US government enacted the lend-lease act, which transferred billions of dollars worth of arms and supplies, including scores of thousands of military aircraft, to America's World War 2 allies. The number of aircraft transferred can be calculated only approximately, as the totals published often include airframes acquired by direct purchase.

Initially, this act was intended to aid only Britain, but after Germany invaded the USSR on 22 June 1941 and America was dragged into the conflict in the wake of the Japanese attack on Pearl Harbor, lend-lease equipment was made available to all allied nations.

Prime Minister Winston Churchill referred to lend-lease as 'This most generous act', but he was wrong. More generous still was his own offer in August 1941 to provide massive military aid to the Soviet Union – an expected enemy only a few weeks earlier, and a far less grateful recipient!

Nazi Germany and the USSR had become allies with the surprise signing of the Molotov-Ribbentrop Pact in Moscow on 23 August 1939. Although on the surface a non-aggression pact between the two European superpowers, the deal also stipulated 'spheres of interest' for the two countries which sealed the fates of the independent nations of Poland, Finland, Estonia, Latvia, Lithuania and Rumania.

The first country to feel the effects of this pact was Poland, which was invaded by Germany on 1 September 1939. Following its conquest, parts of eastern Poland were handed over to the USSR. On 30 November 1939 the Soviet Union launched the Winter War against Finland, and both Britain and France prepared to send weapons and troops to assist Finland, although the Finns succeeded in signing a peace treaty with the Soviets before any materiel help could arrive from the west.

On 10 May 1940 Germany launched its *Blitzkrieg* offensive in western Europe, with its war machine running on Soviet petrol! But for chance, Britain and France could well have been at war with the USSR too by mid-1940, with the RAF making contingency plans for bombing Baku and the Caucasian oilfields from its Middle Eastern bases. And the Soviets also made plans of their own to bomb Cyprus, the Suez Canal and other British bases from the Crimea and Transcaucasia. One reason why Premier Joseph Stalin was surprised by Germany's invasion on 22 June 1941 was that he anticipated war with Britain instead.

However, when the *Wehrmacht* and the Luftwaffe crushed Soviet military forces in just a matter of days, Churchill quickly set aside his 24-year anti-Bolshevik crusade and offered assistance to the USSR from Britain's already inadequate arsenal. Initially, this took the form of just two squadrons of outdated Hurricanes, but eventually Britain and Canada would supply 5211 aircraft to the Soviets. A further 11,450 would be sent by the USA.

The great majority of these aircraft were fighters – Hurricanes, Spitfires and more than 550 Tomahawks and Airacobras purchased from America, but provided from British stocks.

RAF HURRICANES

In mid-August 1941 the RAF despatched No 151 Wing to the Soviet Union. Led by Wg Cdr H N G Ramsbottom-Isherwood, the wing was comprised of No 81 Sqn, under the command of Sqn Ldr Tony Rook, and No 134 Sqn, with Sqn Ldr Tony Miller as its CO. The units shared 40 Hurricane Mk IIBs between them, and some of these aircraft were transported to northern Russia aboard the escort carrier HMS *Argus*, whilst others were crated up and shipped to Archangel.

Reaching their flying-off point on 7 September, the Hurricanes embarked in *Argus* took off from the carrier and landed at Vaenga, ten miles north of Murmansk, in the Soviet Arctic. No 151 Wing performed its first patrols over the nearby frontline on 11 September, and between then and 18 October RAF pilots claimed 15 kills for the loss of one of

Gen A A Kuznetsov prepares to take off from Vaenga in ex-No 151 Wing Hurricane Mk IIB V5252 in late October 1941. This Gloster-built aircraft had been issued new to the RAF just weeks prior to it being despatched to the USSR aboard HMS *Argus* (via G F Petrov)





Gen A A Kuznetsov emerges from another ex-RAF Hurricane Mk IIB following an orientation flight in October 1941. Note the painted out British roundel on the fuselage (via G F Petrov)

This official portrait of Boris Safonov was taken soon after he had received his HSU on 16 September 1941 (via G F Petrov)



their own. When not engaging the Luftwaffe, they also provided Soviet pilots with conversion training onto the Hurricane. In late October the Hurricanes were handed over to the USSR, and the British contingent returned home.

No 151 Wing's Soviet hosts at Vaenga had been 72 SAP-SF (Composite Aviation Regiment-Northern Fleet), assigned to the Naval Air Fleet's Northern Fleet Air Force. The latter was commanded by Maj Gen A A Kuznetsov, whilst 72 SAP-SF was led by Col Georgii Gubanov. Also prominent at Vaenga was ace Capt Boris Safonov, CO of the regiment's I-16-equipped 4th Sqn.

Being the ranking aviator at Vaenga, Gen Kuznetsov became the first Soviet pilot to fly an RAF Hurricane, followed soon after by Safonov.

Boris Safonov was a remarkable officer. Having completed flying training in 1934, he became one of the early pilots to master the I-16. He seems to have been fairly reserved, perhaps even something of a loner. When not flying or performing other duties, Safonov spent his time reading military and technical literature and working out personal tactics. He was also dedicated to training new pilots and helping them learn the art of air combat. Safonov somehow also found time to study literature, history and the arts, and to marry and have a son.

Fellow 72 SAP-SF pilot and future Hurricane ace Nikolai Golodnikov remembered him as quiet and studious, paying great attention to detail and analysing even the most minor battle to learn everything possible from the engagement. He did not smoke or drink vodka (rare traits in a Russian pilot), contenting himself with only a glass of wine. Safonov spoke softly and never swore, except in combat, when the 'mother language' flowed freely. He did not like pretension and show, and was modest about his victories. Indeed, Golodnikov attributes to him the rule 'More than one of your victories in a battle you never credit to your own score'. Safonov routinely distributed his kills to other pilots in his unit.

By the time he converted to the Hurricane in the autumn of 1941, Safonov had already scored 14 individual and 6 shared victories with the I-16. On 16 September, just days after the Hurricanes had arrived at Vaenga, the ace had been rewarded for his efforts in the face of overwhelming odds by being made a Hero of the Soviet Union (HSU) for his first 11 kills.

When the Hurricanes were transferred to VVS (Military Air Force) control, the Northern Fleet Air Force formed 78 IAP-SF (Fighter Aviation Regiment-Northern Fleet) to operate the fighters. Boris Safonov was promoted to lieutenant colonel and sent to command the regiment, and he took with him a cadre of the best pilots from 72 SAP-SF to the new unit. A number of these individuals would subsequently achieve fame flying Hurricanes and Kittyhawks in the Far North.



Hurricanes from 78 IAP-SF fly in close formation with an SB-2 bomber during an escort mission over the frozen wastes of northern Russia in the winter of 1941-42. Despite the freezing temperatures, the pilots are flying with their canopies open (via G F Petrov)

As a commander, Safonov gained a reputation for being a leader of outstanding organisational ability, as well as a superb tactician. He was also a serious and stern disciplinarian, reprimanding pilots for extravagances such as buzzing the airfield and doing victory rolls. On another occasion, when he believed a pilot had broken off combat and returned to base prematurely, Safonov confronted him and warned him that if there was any further repetition, he would shoot the man himself.

On the other hand, he could also be loyal to his men. For example, in early 1942 future Hurricane ace and HSU recipient Sergei Kurzenkov shot down a Soviet Pe-2 bomber after mistaking it for a Bf 110. Higher authorities brought him before a tribunal, but Safonov argued on his behalf and succeeded in getting all charges against him dropped. Afterwards, he told Kurzenkov, 'Well fellow. You certainly are a good shot – there were over 100 bullet holes in the bomber. Well done, but in future please confine your good shooting to the enemy – you know, the ones with the black crosses'.

Safonov only scored two kills flying the Hurricane, namely a Bf 109 on 17 December 1941 and an He 111 two weeks later. This may seem a modest return, but conditions for aerial combat above the Arctic Circle in the winter months were incredibly harsh. A typical day might produce only an hour or two of light fit for flying, assuming that there was no snow in the air or on the ground. And Safonov did not remain with 78 IAP-SF for long following 72 SAP-SF's redesignation as 2 GSAP-SF (Guards Composite Aviation Regiment-Northern Fleet) on 18 January 1942.

It seemed unfair that the pilots who had earned the Guards distinction were now with the 78 IAP-SF, so on 23 March Safonov returned to take command of his old regiment, bringing with him the pilots he had taken as his cadre the previous October. Three days earlier, Safonov was informed that he had been awarded the British Distinguished Flying Cross. By then 2 GSAP-SF had begun transitioning onto the P-40E Kittyhawk, so Safonov had no further opportunity to score additional victories with the Hurricane.

PROBLEMATIC HURRICANE

Within days of their arrival at Vaenga, the Hurricanes began to exhibit the problems that earned the type a poor reputation in Soviet service. In fairness, by late 1941 the Hawker design was already obsolescent, and many of the early examples sent to Russia had previously seen considerable service with the RAF – most of the Mk IIs sent in 1941-42 were rebuilt Mk Is. With a top speed barely faster than the old Polikarpov I-16s that they were meant to replace, the Hurricanes were considerably slower than the Bf 109E/Fs ranged against them in the north by the Luftwaffe. The Hurricane's performance in a dive was also less than

inspiring, and the fighter did not manoeuvre well in the vertical plane. However, it did manoeuvre well in the horizontal plane, and retained its stability as a gun platform in the tightest of turns.

By consensus, the Hurricane could be flown by almost anyone, and it would have been a very suitable 'touring' aircraft. However, it was not up to scratch as a fighter in the eyes of battle-hardened Soviet pilots. The few other redeeming qualities exhibited by the Hurricane from a Russian perspective included a roomy and comfortable cockpit with superior visibility. The latter point was particularly appreciated, as locally built aircraft were plagued by poor quality canopy transparencies throughout the war. This meant that the superiority of British glass – particularly the armoured glass – was much appreciated.

Initially, Russian pilots were reluctant to fly the Hurricanes with their canopies closed, having flown nothing but open-cockpit I-16s prior to the arrival of the British fighters. However, once they became used to an enclosed cockpit, they enjoyed the warmth it afforded them in the chilly Arctic climate of the Far North.

The British radios in each and every Hurricane were also appreciated, as only a third of all Soviet fighters were fitted with such equipment. Early in the war even this ratio was seldom met, and many Russian radios were receiver-only, which meant that a wingman might hear commands from his flight commander but could not return any warnings or alerts.

Not all the technical maladies afflicting the Hurricane were the aircraft's fault, however. Some of the worst problems were due to the harshness of the climate in the winter – pipes and hoses cracked, fuel and lubricants froze and batteries failed prematurely. The aircraft's vital air intakes also clogged up with ice and mud, and for this reason Hurricanes fitted with Vokes air filters were frequently seen in the Far North.

Poor-quality fuel, with a low octane rating, which seemed to proliferate in the USSR in 1941–42, further reduced the Hurricane's performance. Its Merlin engine also suffered premature wear because of the dirty fuel.

Another major problem afflicting the aircraft in Soviet service was the fighter's tendency to nose over when operating from the rough ground synonymous with Russian airfields throughout World War 2. The Hurricane's tail tended to rise when taxiing across soft earth, and the aircraft quickly developed a reputation for standing on its nose or turning over completely. A groundcrewman was instructed to sit on the tailplane

This Hurricane IIB was photographed at the Air Force Scientific Testing Institute displaying a full Russian armament of two ShVAK cannon, two UB machine guns, six RS 82 rockets on underwing rails and two bombs (via G F Petrov)





Ace, and future HSU winner, Capt Aleksandr Kovalenko of 2 GIAP-SF prepares to climb into his Hurricane Mk IIB at Vaenga in the spring of 1942. The aircraft has been fitted with ShVAK cannon and UB machine guns. A number of Kovalenko's 19 victories were scored in the Hawker fighter in 1942 (via G F Petrov)

in order overcome this problem, and he would jump off just before take-off. Although this practice was strictly forbidden, in many units this order was totally ignored. On more than one occasion a tragic accident ensued when the groundcrewman failed to jump off in time and the Hurricane took off with him still hanging on for dear life.

Another major shortcoming of the Hurricane was its armament, for although 12 machine guns sounded impressive, their number did not compensate for the fact that the 7.7 mm bullets that they fired had trouble penetrating German armour. As with their own ShKAS machine guns, the Russians grimly joked that these light weapons were good only to spoil the Germans' paint. Boris Safonov noted this problem, and suggested that the Hurricanes should be rearmed with Russian 20 mm ShVAK or 12.7 mm UB guns.

Some aircraft were indeed re-equipped with larger weapons, and although various combinations were seen, the most common was two ShVAK and two UB guns per aircraft in place of the dozen 0.303-in Brownings. The Hurricanes were also frequently equipped with four or six rocket rails for RS-82 projectiles, these being used for both air-to-air as well as air-to-ground attacks.

A number of units also supplemented the Hurricane's armour with seat armour stripped from old Polikarpovs, although not all pilots preferred the added weight in the already poor-performing British fighter.

So, in general, the Hurricane was not popular with Soviet pilots, many of whom considered it less desirable than the already obsolete I-16. On the other hand, some thought that the fighter was marginally superior to the LaGG-3. Ultimately, when all was said and done, the Hurricane was all the Northern Fleet Air Force had during the hard winter of 1941-42.

HURRICANE ACES

Sergei Kurzenkov, who was saved by Boris Safonov from a military tribunal for downing a Pe-2 for his 'first kill', was, like his CO, another pilot with years of pre-war flying experience. However, he had seen no

actual combat prior to being sent to 78 IAP-SF in October 1941. Chastened by his 'own goal', Kurzenkov's first proper encounter with the Luftwaffe proved to be an even worse experience for him.

On 4 January 1942 his Hurricane was badly shot up when bounced by a Bf 109. Although Kurzenkov was wounded in the thigh by shell fragments and his aircraft set alight, he endured his predicament long enough to shoot down a second yellow-nosed Messerschmitt before crash-landing behind Soviet lines.

Following several weeks in hospital, Kurzenkov returned to the fighting, and on 24 March he intercepted a formation of Ju 88s and shot one down. On 15 April he claimed a Ju 87 destroyed for his third kill, followed two days later by a Bf 109. On 10 May Kurzenkov's Hurricane was badly shot up once again during a fiercely fought engagement with Bf 109s and Bf 110s. Five of the nine Hurricanes sent out on the mission failed to return, and Kurzenkov only barely managed to escape the encounter with his life after force-landing his stricken fighter in enemy territory. Although suffering from a head wound, he managed to make it back to Soviet-held territory the following day. Following yet another spell in hospital, Kurzenkov returned to his unit in July.

Promoted to captain in late 1942, Kurzenkov was subsequently appointed deputy regiment commander of 78 IAP-SF.

On 28 February 1943, during the course of a nocturnal reconnaissance mission, Kurzenkov shot up a Ju 88 on an airfield, but his Hurricane was hit by flak in the process. Struggling back to Soviet territory, he was forced to bale out some distance from his airfield. Unfortunately, Kurzenkov's parachute did not completely deploy, and he was badly injured when he hit the ground. Although he returned to service months later, the ace was not able to fly again. Kurzenkov had completed 225 missions and downed 12 aircraft, as well as damaging four others and destroying five on the ground. He was awarded the HSU on 24 July 1943.

Fellow 78 IAP-SF ace Vasilii Adonkin had received his wings in early 1941 and then been sent to 72 SAP-SF to fly I-153 biplanes. On the evening of 29 June he intercepted an attack by Ju 88s and destroyed one of the bombers with two RS-82 rockets – Adonkin claimed another victory with the obsolete Polikarpov fighter on 9 August.

In late March 1942 he was promoted to captain and transferred to the newly-established I-16-equipped 27 IAP-SF. Later that year Adonkin was posted to 78 IAP-SF, which was of course still flying Hurricanes, and in July 1943 he was made commander of one of the regiment's squadrons. By then Adonkin had completed 365 sorties and participated in 42 air combats, scoring 16 individual victories and 6 shared victories (including 13 fighters). Awarded the HSU on 22 January 1944, he was promoted to major soon afterwards and given command of P-39-equipped 255 IAP-SF. Adonkin's spell as regiment

Also a future HSU winner, Capt Vasilii Adonkin of 78 IAP-SF poses with his Hurricane Mk IIB on 20 June 1943. As can be seen, a fair number of his 22 kills were claimed with the Hurricane (via G F Petrov)



commander was to be a brief one, however, for he was shot down and killed on 17 March over the Finnish island of Eckero.

Pre-war flying instructor, and future Hurricane ace, Pavel Sakharov completed military aviation school in 1941 and was sent to the newly-forming 78 IAP-SF. He regularly saw combat with the Hawker fighter during the next 18 months until the regiment made the switch to Kittyhawks in the summer of 1943 – Sakharov continued to fly P-40s until war's end. By the time fighting in the Far North ceased in November 1944 he had achieved the rank of captain, and was a squadron commander. Sakharov had flown 157 missions, and during the course of 18 aerial combats (many in the Hurricane) had shot down nine aircraft. He also took part in the sinking of a German transport ship and a coastal steamer. Sakharov was awarded the HSU on 5 November 1944.

MORE HURRICANES ARRIVE

Soon after 72 SAP-SF and 78 IAP-SF had converted onto Hurricanes, more Hawker fighters began to flood through Murmansk. These allowed additional VVS units to re-equip, including I-15bis/I-16-equipped 152 IAP on the Karelian Front. New units were also created, including 760 IAP, which formed in December 1941, and 767, 768 and 769 IAPs of 122 IAD-PVO (Fighter Aviation Division-Home Air Defence).

Preceding all these units, 27 ZAP (Fighter Training Regiment) had been established near Vologda in August 1941 to serve as a training regiment for pilots destined to fly both the Hurricane and Tomahawk, and it also provided groundcrew for these new units.

Unlike 72 SAP-SF and 78 IAP-SF, the new Hurricane regiments scored few victories and produced few pilots of note. One individual who did make his mark was Viktor Krupskii. A junior lieutenant flying Polikarpov biplanes and MiG-3s with 147 IAP on the Karelian Front when Germany invaded, Krupskii shot down his first Bf 109 in July 1941. When 760 IAP was established in December, he was one of the first pilots transferred in to serve as a deputy squadron commander after being promoted to senior lieutenant. By mid-1942 Krupskii had flown 240 combat missions and, during 28 aerial battles, claimed three personal and eight shared victories. Included in this score were three Ju 88s that he had shot down



This photograph of Capt Pyotr Sgibnev of 78 IAP-SF was taken in the summer of 1942, and it shows him wearing two Orders of the Red Banner badges on his tunic. On 23 October 1942 he was awarded the HSU. The leading Soviet Hurricane ace with 16 victories, Sgibnev had increased his tally to 19 by the time he was killed in action flying a P-39 as CO of 2 GIAP-SF on 3 May 1943 (via G F Petrov)

Mechanics prepare a Hurricane Mk IIB of 78 IAP-SF at Vaenga in the spring of 1942 (via G F Petrov)



during the course of five days in early June while flying a Hurricane.

Krupskii was awarded the HSU on 22 February 1943, and by war's end he had been promoted to lieutenant colonel. Flying 330 sorties, he had scored ten individual and nine shared victories. Almost all of these kills had been achieved flying Hurricanes or Kittyhawks.

Serving alongside Krupskii in 760 IAP was fellow ace, and pre-war pilot, Aleksandr Nikolaenkov. Also in action from June 1941, he too was sent to the newly-established unit in December as a deputy squadron commander. By May 1942 Nikolaenkov was a senior lieutenant, and by April of the following year he had flown 229 sorties and scored 8 individual and 23 shared kills in 28 aerial combats (all in Hurricanes).

On 2 July that same year Nikolaenkov's flight became involved in a fierce engagement with German fighters within the Arctic Circle. His squadronmate Jnr Lt Zubach, who had shot down a Bf 109 a few minutes earlier, went to the aid of several Hurricanes that were being attacked by a large number of 'Messers', but during the attack his engine failed and he had to force-land. While Zubach put his fighter down, Nikolaenkov and his wingman, Lt Sakovich, tried to protect him from the enemy fighters. However, Sakovich's Hurricane was also hit in the engine and brought down. Now all alone, Nikolaenkov attacked the Bf 109s head-on and shot one down, but he was seriously wounded in the process. The ace was able to return to base, but he died of his wounds five days later on 7 July 1943. He was posthumously awarded the HSU on 24 August 1943.

Ace, and pre-war pilot, Nikolai Replikov had first seen action against the Finns during the Winter War of 1939-40, and had risen to the rank of senior lieutenant, and been made a squadron commander, by the time 152 IAP was assigned to 103 SAD (Composite Aviation Division) on the Karelian Front in late October 1941. Replikov's unit re-equipped with



Hurricane Mk IIA Z2585 of 760 IAP crash-landed in Finland on 16 February 1942 after being attacked by enemy fighters. Quickly recovered, the former RAF aircraft was subsequently repaired and flown in frontline service by the Finnish Air Force. Delivered to the RAF in early 1941, Z2585 had flown with Nos 56 and 316 Sqns prior to being sent to the USSR (via G F Petrov)

Hurricane Mk IIB BM959 of 609 IAP was forced down near the Finnish airfield at Tiiksjärvi, in East Karelia, on 6 April 1942, its pilot, Jnr Lt Ivan Babanin, being captured. BM959 had been sent to the USSR on 10 December 1941, having seen no prior RAF service. The slogan above its fuselage star proclaimed *For the Fatherland*, whilst on the starboard side an identically placed inscription read *For Stalin* (via G F Petrov)





Hastily camouflaged with a handful of branches cut down from nearby trees, a heavily exhaust-stained Hurricane Mk IIB awaits its next sortie at an undisclosed airfield in Karelia during the summer of 1942 (via G F Petrov)

Hurricanes soon after its arrival in northern Russia, and he enjoyed some success with the aircraft up until his death on 4 December 1941.

On that date Repnikov shot down a Finnish Morane-Saulnier MS.406 over Medvezhegorsk and then rammed the French-built fighter flown by 6.5-kill ace Sgt Toivo Tomminen of LeLv 28 – the latter also died in the collision. Repnikov, who had flown 51 missions and shot down five aircraft prior to his death, was posthumously awarded the HSU on 22 February 1943.

The RAF's ability to supply Hurricanes to the USSR had received a significant boost soon after the first examples had arrived in Vaenga when, on 17 September 1941, a joint British and Soviet force jointly occupied Iran. This provided another route for sending supplies to the USSR through the port of Abadan, and soon after its seizure, the first shipments of Hurricanes commenced. However, most examples were still sent as deck cargo via PQ convoys to Murmansk until these ended in mid-1942. And with more and more Hurricanes being despatched to the USSR, the machines began to equip units on other fronts too.

Amongst the next group of regiments to receive the Hurricane was 1 GIAP, which had begun the war as I-16-equipped 29 IAP in the Far East. Rushed to the Western Front following the German attack, the regiment had first seen action in September. Distinguishing itself during weeks of fighting as it flew countless ground attack missions in defence of El'na, on the outskirts of Moscow, the unit became the first in the VVS to be granted the Guards title. Redesignated 1 GIAP, in December 1941, it was withdrawn to the Urals for re-equipment with Hurricanes.

Posted to the Kalinin Front the following month, 1 GIAP had been reduced to just 13 aircraft by March. In return, its pilots had succeeded in claiming only four aerial victories. Restored to full strength, the unit was once again decimated in just a matter of weeks, and in May it was withdrawn and re-equipped with Yak-1s.

1 GIAP failed to produce any aces during its time with the Hurricane, although several future aces first saw combat with the British fighter. One

such individual was Lt Vitalii Klimenko, who joined 1 GIAP in December 1941 after having been injured flying with another unit – he had crash-landed following combat with Bf 109s. Enjoying no success with the Hurricane, Klimenko had to wait until August 1942 before he could claim his first victory. He ultimately scored 13 individual and 6 shared victories in the space of just 12 months.

Squadron commander Capt Aleksei Molodchinin was yet another pilot who enjoyed no luck whilst flying Hurricanes with 1 GIAP. Having initially served in the Army in 1934-35, he had rejoined to complete flying training in 1938. Posted to 1 GIAP in March 1942, Molodchinin only succeeded in making his mark as a fighter pilot once the regiment had received the Yak-1. By March 1943 he had scored ten victories, and he duly received the HSU for his exploits five months later. By the end of the war Molodchinin had completed almost 300 sorties and scored a total of 15 individual and 12 shared victories.

A unit stalwart from the very start of the war, Vasilii Moskovenko had completed his flying training in Stalingrad in 1938 and then been posted to 29 IAP. He had been in action with the regiment from the very start of the war, and in March 1942 his Hurricane was shot down by a Bf 110 over the Kalinin Front. Surviving this incident, Moskovenko had achieved the rank of senior lieutenant by May 1945, completed 140 sorties and scored 14 individual and 3 shared victories in 26 aerial combats – none of these claims were in Hurricanes, however. Surviving the war, Moskovenko received the HSU on 27 June 1945.

The ineffectiveness of 1 GIAP with the Hurricane seems to have been primarily due to its pilots, and particularly its leadership, who lacked confidence in the aircraft's ability to match German Bf 109s and Bf 110s encountered over the Kalinin Front. By contrast, 485 IAP, commanded by Georgii Zimin, held its own in combat on the Northern Front.

Zimin had joined the military in 1931 so as to attend flying school, and after gaining his wings he was sent to the Far East, where he saw action, but no air combat, in the fighting around Lake Khasan in 1938. Zimin was undertaking a course at the Air Force Academy when Germany invaded, and he was sent to 42 IAP, equipped with MiG-3s and Yak-1s.

Two pilots from 1 GIAP prepare to fly a mission in their Hurricane Mk IIBs in the spring of 1942. Both fighters appear to have retained their much-maligned Browning 0.303-in machine guns (via G F Petrov)





A Hurricane Mk IIB has its engine run up on a snowy airfield during the winter of 1942. Notice the rocket rails fitted beneath the fighter's starboard wing (via G F Petrov)

By mid-November the regiment had had to be withdrawn for re-equipment, by which point Zimin had scored seven kills. After three months of waiting for new aircraft, he was promoted to major and made CO of 485 IAP, which was in the process of forming with the Hurricane. The task facing Zimin was daunting, for most of his pilots were fresh from flying school, with only a few hours of cockpit time.

Having trained his pilots as best he could in the time available, Zimin led them to Vypolzovo airfield on 2 April, where the unit was committed to the Battle of the Demyansk Pocket. Over the next few weeks the regiment conducted all manner of missions ranging from air cover and interception to ground attack in place of scarce *Sturmoviks*. Hurricanes were also used to hunt down the Luftwaffe's transport aircraft which were trying to supply the cut-off Demyansk pocket.

Zimin's leadership helped the regiment overcome its lack of experience and obsolete equipment, and a number of pilots enjoyed success. After the first week of combat, only a single Hurricane had been lost, but once the Germans launched their offensive, casualties mounted. Yet in spite of serious losses, 485 IAP still managed to claim 56 kills in May 1942 alone.

In one epic battle fought that month three Hurricanes, flown by Maj Kondrat'ev and Lts Krikunov and Volkov, were attacked by ten Bf 109s. Engaging the enemy for a full 40 minutes, often at heights as low as 30 metres, the trio of pilots eventually succeeded in shooting down six of the 'Messers' before they broke off the action and returned safely home. Such achievements far eclipsed the efforts of all other Hurricane-equipped IAPs in this sector of the frontline, and Zimin was tasked with advising other units on why his regiment was so successful.

One of 485 IAP's squadron commanders was Capt V G Lazarev, who, between March and May 1942, claimed at least five victories prior to being killed in action. Fellow ace Lt Yakov Bakharev also enjoyed success during this period, being credited with seven aircraft individually and five shared destroyed between April and June 1942. Zimin claimed that Bakharev had the potential to become a leading VVS ace, but unfortunately he too fell in combat during the difficult summer of 1942.

Snr Lt Loktionov was yet another 485 IAP Hurricane pilot to 'make ace' in the first half of 1942, having destroyed eight aircraft by June 1942. He too appears to have been killed during the summer fighting.

One pilot who did survive the carnage of mid-1942 was Ivan Piskunov. A flight cadet when war broke out, he was sent to 485 IAP in May 1942 as a sergeant pilot. During one of his first familiarisation flights in the Hurricane, Piskunov was bounced and shot down by Bf 109s while attempting to land. Fortunately, he managed to crash-land without suffering any injuries. Undeterred by this early setback, Piskunov went on to become a talented pilot with 12 victories to his credit by war's end.

Routinely moved to austere airstrips in the various regions surrounding the Demyansk pocket as required, 485 IAP was never far from the thick of the action throughout the spring and summer of 1942. For example, on 19 June Zimin led seven Hurricanes in an interception of a dozen Ju 87s, escorted by four Bf 109s. A few minutes later 11 more 'Messers' intervened, and the subsequent aerial battle raged for 45 minutes. By the time the fighting had ended, 485 IAP's pilots had claimed four Ju 87s and six Bf 109s shot down, and three more damaged, for the loss of just one Hurricane. Zimin himself claimed two Ju 87s and a Bf 109.

485 IAP remained at Demyansk until the spring of 1943, by which point it had fully re-equipped with Yak fighters. The latter did not last long, however, for on 18 March the regiment was redesignated 72 GIAP and withdrawn from the frontline in order to convert onto the P-39Q. Shortly afterwards, Maj Zimin was promoted to command an air division. By May 1945 Zimin had been promoted to colonel and received the HSU. Finishing the war with 18 individual and 20 shared victories to his credit, Zimin had claimed five of these kills with the Hurricane.

Aside from producing a handful of Hurricane aces, 485 IAP also nurtured a number of pilots who would go onto 'make ace' on more advanced fighters as the war progressed.

Elsewhere, other future high-scoring aces also saw action in the Hurricane in 1941-42, including Sergei Dolgushin. Having spent the first eight months of the war flying I-16s, MiG-3s and LaGG-3s with 122 and 180 IAPs, he was issued with a Hurricane in March 1942 when the latter regiment re-equipped. Already an eight-kill ace, Dolgushin hated the aircraft, but he nevertheless managed to score five victories with it whilst serving on the Southwest Front. In August 1942 he was transferred to 434 IAP just as the unit was receiving Yak-7s. Dolgushin survived the war with 17 individual and 11 shared kills to his credit.

Another future high-scorer to claim early kills with the Hurricane was Ivan Stepanenko. Serving as a junior pilot with I-153-equipped 4 IAP on the Southern Front when his unit was re-equipped with Hurricanes

Fitted with Soviet cannon and machine guns, an unidentified Hurricane Mk IIB taxis out at the start of a sortie in the summer of 1942 (via G F Petrov)





An unidentified pilot converses with one of his groundcrew in front of a well-worn Hurricane Mk IIB during the winter of 1942. This aircraft has been fitted with underwing RS 82 rocket rails (via G F Petrov)

in November 1941, Stepanenko's association with the fighter got off to a bad start when he stood one on its nose during his conversion. Another pilot who was unimpressed with the Hawker fighter, he complained bitterly that on at least two occasions his machine guns failed to pierce German armour, cheating him of aerial victories.

Stepanenko finally scored his first kill on 15 June 1942, when he used the RS-82 rockets fitted beneath the wings of his Hurricane to demolish a Ju 87 at close quarters over the Bryansk Front. Two months later

he shot down a Bf 109, but Stepanenko was in turn forced to belly land his Hurricane just behind the Soviet lines – he leapt from the cockpit moments before the fighter exploded. When he returned to his regiment, Stepanenko learned that it was being withdrawn to convert to the Yak-1, which the future ace flew until VE-Day. By then he had scored 33 individual and 8 shared victories (only his first two victories were achieved in the Hurricane), and won the HSU twice.

One of Stepanenko's friends from 4 IAP was Crimean Tatar ace Sultan Amet-Khan, who had begun the war flying I-153. He too had switched to Hurricanes in November 1941, but had had to wait until May before he was able to score a kill with the fighter.

Amet-Khan had wagered ownership of a silver cigarette case with a fellow pilot that he would claim a victory before the end of May 1942. Luckily for the future ace, on the 31st he intercepted a Ju 88 over Yaroslavl and attacked it twice. On both occasions he discovered that the bomber's heavier machine guns outranged his own.

Amet-Khan's Hurricane was now damaged, its pilot wounded in the arm and its guns out of ammunition. However, the cigarette case was a cherished prize, so there was only one course of action left open to the pilot. He tried to ram the bomber's tail with his propeller but missed, and he now found himself directly above the Ju 88. Banking hard, he struck the bomber's right wing with his own and broke it off, leaving two of the crew to take to their parachutes. Amet-Khan also baled out. When he landed near a peasant village, the inhabitants took him into custody and confined him with his two German victims, not believing he was a Soviet airman because of his non-Russian appearance and his Crimean accent. Eventually, the police returned Amet-Khan to his regiment, where he collected his hard-earned cigarette case before going to the hospital.

Over the next 30 days, Amet-Khan scored four more victories to establish himself as a Hurricane ace. Later, he used Yak-1s, P-39s and La-7s to claim a total of 30 individual and 19 shared victories. These successes twice earned Amet-Khan the HSU.

3 GIAP-KBF (Red Banner Baltic Fleet), based near Leningrad, received Hurricanes in May-June 1942 in place of LaGG-3s and Yak-1s. Amongst the pilots to make the transition at this time with the unit were



Several unknown Hurricane pilots smile for the camera on the Northwestern Front during the summer of 1942 (via G F Petrov)

The pilot in this photograph is identified only as 'Matveev', and he is quite possibly Capt M A Matveev, who flew Hurricanes with 3 GIAP-KBF in early 1942. Some aviation historians have credited him with as many as 25 victories, although how many of these were claimed in the Hurricane remains a mystery (via G F Petrov)



future aces Georgii Kostylev and Igor Kaberov.

During the six months that he flew Hurricanes, Kostylev would shoot down two Finnish Fokker D.XXIs in his distinctively marked fighter, which bore the patriotic slogan *Za Rus*. This referred to the founders of the first Russian kingdom of the 9th century, rather than celebrating Stalin or the Communist Party.

Kaberov complained about the Hurricane's shortcomings less than most of his contemporaries in the VVS, noting that once they had

upgraded the armour and the armament in the British fighter, the latter was twice that fitted to the Yak-1 that he had previously flown. He also appreciated the fitting of a horizontal indicator in the Hurricane's cockpit, as this made flying through clouds much easier.

Within days of Kaberov completing his transition to the Hurricane and returning to the frontline with his regiment, he was involved in an 'incident'. The Finns were flying captured I-153s at this time, and on the day in question, while returning from a patrol, Kaberov and Kostylev spotted a lone I-153 heading for Soviet territory at low altitude over the Gulf of Finland.

Attacking together, the Hurricane pilots shot the intruder down, but when they returned to base, they learned that the Polikarpov fighter was being flown by a Maj Biskup, who was Chief of Staff of a neighbouring regiment. He had made an unplanned trip over Finland while testing a newly-repaired aircraft. Fortunately Biskup survived, and Kostylev and Kaberov were let off with an admonition about excessive vigilance.

During September 1942 3 GIAP-KBF spent much of its time escorting *Sturmoviks* sent to attack Finnish naval bases. The Soviet pilots held their own when engaging Finnish Brewster Buffaloes, MS.406s, Hawk 75As and Fiat G.50s, but found that the German-flown Bf 109Fs were markedly superior to their Hurricanes. Kaberov enjoyed several successes during these escort missions, downing a Finnish 'Caproni' (probably a Hawk 75A or a Buffalo) that had latched onto the tail of a squadron-mate, as well as a Bf 109 and a Ju 88 on subsequent missions.

Finally, in October 1942, both Kaberov and Kostylev were able to return to the LaGG-3, which they

both preferred to the Hurricane. Both men went on to become high-scoring aces flying the La-5.

AIR DEFENCE HURRICANES

In January 1942 the VVS began to establish a number of new regiments and divisions whose sole job was to fly air defence patrols over Soviet cities in older fighter types not deemed suitable for offensive missions over enemy territory. In the Far North, these units included 104 and 148 IADs, which were to defend Archangel, and 122 and 126 IADs, tasked with protecting Karelia. Each of these divisions contained three IAPs, although the latter seldom had a full complement of fighters.

In general, the pilots equipping these units showed little inclination to press home their attacks, preferring instead to simply chase away any enemy aircraft they encountered.

Half of the regiments were issued with Hurricanes as their initial equipment, these units including 767, 768 and 769 IAPs of 122 IAD. Some of these regiments later received Kittyhawks or other more modern fighters, but a few soldiered on with Hurricanes until early 1945.

Unlike the air defence regiments, fellow Hurricane operator 17 GShAP (Guards Ground-attack Aviation Regiment) was never far from the action on the Northern Front. Having begun the war as 65 ShAP, the unit flew a mix of cannon-armed or rocket-equipped I-15bis, I-153s and I-16s on dedicated ground attack missions on the Karelian Front prior to receiving Hurricanes in early 1942.

Assault aviation regiments were primarily equipped with the rugged Il-2 *Sturmovik* for these dangerous missions, but at the beginning of the conflict many regiments that had existed pre-war, such as 65 ShAP, were flying a mixed fleet of obsolete Polikarpov types. Such units fought heroically and suffered devastating losses before they received Il-2s.

In recognition of its sacrifices in 1941, 65 ShAP was renumbered 17 GShAP on 7 March 1942, but unlike many of its contemporaries, the unit received Hurricanes rather than Il-2s once the Hawker fighters began arriving in quantity in the USSR. One of a handful of ShAP regiments (particularly on the northern sector of the front) to receive Hurricanes, little is known about 17 GShAP's combat record – or that of the other ground attack units flying



A Hurricane Mk IIB is prepared for a night mission. This aircraft probably belonged to one of the Moscow Area PVO Zone regiments (via G F Petrov)

Lt Col V I Belousov (right), commander of 17 GShAP, decorates one of his pilots on the Karelian Front in the summer of 1942. Prior to receiving Hurricane Mk IIs, the regiment had flown the I-15bis, and it later converted to Il-2 *Sturmoviks* (via G F Petrov)



the British fighter. However, we may surmise that the aircraft's battery of 12 machine guns was useful for ground strafing, and that its liquid-cooled Merlin engines was vulnerable to return ground fire.

As 1942 progressed, still more Hurricanes arrived in the USSR, with many of these aircraft coming from Canadian production lines. However, by now fully aware of the Hawker fighter's shortcomings in combat, the Soviets began to increasingly demand Spitfire Mk Vs instead, and to reject Hurricanes which had flown for more than 40 hours prior to delivery. Often, a new fighter could approach this figure during acceptance testing and whilst being flown part of the way to the USSR.

Nevertheless, deliveries continued into 1944, when the last batch of 382 Hurricanes was delivered. By then the British had supplied their Soviet allies with 3360 aircraft. Of these, 399 had been lost when the ships they were aboard as hold cargo were sunk trying to reach Murmansk. A further 117 airframes were rejected by the Soviet inspectors upon their arrival in the USSR.

Among the Hurricanes sent were 176 Mk IIAs, 1690 Mk IIBs and 1130 Mk IICs. Canadian production supplied 529 Mk Xs, 150 Mk XIs and 248 Mk XIIIs, and these aircraft are included in the preceding totals under their British equivalent designations. Among the Hurricanes delivered in late 1943 were 46 Mk IIIDs, with twin 40 mm cannon, and 30 Hurricane Mk IVs. These might have proven useful for *Sturmovik* regiments, but by then the Soviets had increased production sufficiently enough to equip virtually all of its ShAP units with Il-2s.

The Hurricane Mk IIIDs were duly assigned to 246 IAP, and although this regiment took the 'tank busters' to the front during the summer of 1944, there is no evidence that they actually saw any action with them prior to the unit exchanging the Hawker aircraft for Yak-1s.

From 1943 onwards, Hurricanes were slowly phased out of frontline service and sent to second-line PVO regiments. Others were converted into two-seaters and assigned as artillery correction aircraft. By war's end there were no Hurricanes left in the frontline, except for a handful that were used as hacks. However, there were still some 760 Hurricanes serving with the interceptor units of the PVO in May 1945.

This Canadian-built Hurricane Mk IIB survived its frontline service as a fighter and was modified into a two-seater for artillery correction duties. Note the machine gun in the rear compartment (via G F Petrov)



TOMAHAWKS AND KITTYHAWKS

Alongside the first shipments of Hurricanes, the British also sent numerous examples of the Curtiss Tomahawk to the USSR from the summer of 1941 onwards. Indeed, 47 Tomahawk IIA/Bs arrived by ship as early as late August 1941, and these were sent to newly-established 27 ZAP, which was responsible for training pilots destined to fly lend-lease fighters. Other ZAPs would be established, including 25 ZAP in Azerbaijan and 14 and 22 ZAPs of 6 ZAB, east of Moscow.

Determining the exact number of Tomahawks and Kittyhawks supplied to the USSR is a difficult task primarily because the American method of record keeping differed from that used by the British. Furthermore, different official sources charting the supply of lend-lease aircraft give information which is irreconcilable with other records, particularly for early shipments. For example, it seems impossible to determine the precise number of P-40Gs built, let alone sent to the USSR! The G-model was a Model 81 returned to Curtiss and given increased wing armament and protection to bring it up to Tomahawk II standards.

The Soviets were not very careful in their accounting either, lumping all variants of the Model 81 together as simply the Tomahawk and all Model 87s as the Kittyhawk. With the latter, there was no effort made to distinguish between the E- and the much later N-models. It also appears that the Soviets were sent 230 Tomahawks from British stocks, as well as 17-21 P-40Gs purchased directly by the USSR. The Soviets also claimed that they swapped gold for 59 early model Curtiss fighters. There is also disagreement over the number of P-40Es sent, although most sources state that 691 were supplied, along with 313 P-40Ks. Some Allied records indicate that 100 P-40Ls were sent from British stocks, although this seems unlikely. Finally, the Soviets were sent 220 P-40Ms and 980 P-40Ns in 1943-44.

The USSR claimed to have received 247 Tomahawks and 1887 Kittyhawks by war's end, and these totals sound realistic once the figure for aircraft lost in transit is factored in.

Pilots of 126 IAP prepare for a mission in their newly-delivered Tomahawk IIs during the winter of 1941. These men carried out patrols of the Moscow Air Defence Zone in virtually all weathers. Note the painted-out RAF roundel beneath the starboard wing (via G F Petrov)





Most Soviet pilots considered the Tomahawk an acceptable fighter, being better than the I-16, the Hurricane and even the LaGG-3. It was not as good as the Yak-1 or the Bf 109F/G, however. The Curtiss fighter was roomy and well-equipped, and the warmth derived from its enclosed cockpit drew great praise. As always, the superior quality of Western transparencies was appreciated too. The cockpit instrumentation was considered better than that fitted in Soviet fighters, and the presence of a radio as standard equipment was again a boon.

In respect to the aircraft's flying performance, the Tomahawk's top speed was adequate, although the Curtiss fighter was appreciably slower than the Bf 109. Its rate of climb and performance at altitudes above 15,000 ft were considered inadequate, however. All P-40s were deemed to be manoeuvrable enough in the horizontal plane to allow them to out-turn German fighters, but if they tried to manoeuvre with the enemy in the vertical, they were totally outclassed.

The P-40's range in comparison with Soviet machines was outstanding, and this fact was a great comfort to pilots flying with Naval Aviation and VVS regiments in the Far North. The fighter's ability to withstand considerable battle damage was also a great plus point, and many damaged Curtiss fighters limped home – even in the wake of last-ditch ramming attacks. On one occasion, a Tomahawk pilot was able to complete two ramming attacks in the same sortie and still fly his battered P-40 back to base with damage that was repaired in just a matter of hours.

Soviet pilots also appreciated the aircraft's heavy armament. In fact Nikolai Golodovikov reports that in his regiment (2 GSAP-SF) they removed the four 0.303-in rifle calibre machine guns from the wings and relied exclusively on the two 0.50-in heavy machine guns mounted over the engine. Photographic evidence reveals that this was not a general practice in other units, although it demonstrates how P-40 armament compared favourably with that of contemporary Soviet fighters, as well as the growing Russian disregard for rifle-calibre machine guns.

As with the Hurricane before it, the major problem with the P-40 in Soviet service was the aircraft's unsuitability for operations in extremely cold weather. The latter caused the fighter's Allison inline engine to be unreliable, as the powerplant's oil and hydraulic lines routinely froze solid and coolant hoses snapped off. Tyres and batteries failed, and fluid in the

A Northern Front Tomahawk II (possibly from 154 IAP) is refuelled between missions in early 1942. This aircraft was charged with protecting the vital Road of Life across the frozen wastes of Lake Ladoga which connected the besieged city of Leningrad with the rest of the USSR. The Curtiss fighter proved very difficult to maintain in such extreme weather conditions (via G F Petrov)

engine's radiators also froze, cracking their cores. During the winter of 1941, the Tomahawks of 126 IAP suffered from cracked radiators on 38 occasions, and groundcrews were forced to scour local villages requisitioning silver spoons so as to be able to repair the damage!

These mechanical problems were made far worse by the failure of British and American planners to provide spare parts for the P-40s supplied under lend-lease. Often, an entire regiment might be reduced to a single flyable aircraft for want of simple replacement parts.

This lack of foresight also extended to regular shortages of ammunition appropriate for the machine guns fitted to the P-40. Indeed, this problem was compounded by the fact that American and British bullets were of differing calibres, which meant that they were not interchangeable. Thus, far too many aircraft were supplied to the USSR without adequate spare parts support to allow them to be used effectively in combat.

UNIT CONVERSION

126 IAP, which had already distinguished itself under the leadership of Maj Viktor Naidenko during its support of the Army on the Western Front, flying I-16s and then MiG-3s in defence of Stalingrad and then Moscow, began its conversion onto the Tomahawk on 15 September 1941. Once fully equipped with P-40Bs, the regiment returned to the frontline as part of 6 IAK (Fighter Aviation Corps) within the Moscow Air Defence Zone, flying its first sorties on 12 October.

The regiment's CO, Maj Viktor Naidenko, had seen considerable combat during the late 1930s, scoring three victories whilst flying as a volunteer with the Spanish Republicans, followed by five Japanese aircraft destroyed in August 1939 during the Battle of Khalkhin Gol. Four months later Naidenko was credited with four more victories during the Winter War with Finland, although claims against the Finns were always overestimated. Nevertheless, Naidenko was an experienced pilot by the time Germany invaded the USSR.

126 IAP had flown 985 sorties, and scored 29 victories for the loss of four aircraft and two pilots in combat, by 25 April 1942. Two-thirds of these sorties, and 17 victories, had been achieved during the first month of the conflict alone. The subsequent drawdown in effort by the unit reflects the additional loss of aircraft due to accidents and a chronic lack of spare parts.

126 IAP CO, and pre-war ace, Maj Viktor Naidenko (wearing goggles and with the collar insignia) briefs some of his pilots prior to a sortie, on the Western Front during the grim winter of 1941 (via G F Petrov)



In May 1942 126 IAP was re-equipped with P-40Es, which it flew through to the end of September 1942. Deployed to Stalingrad in early August as a two-squadron regiment, 126 IAP was withdrawn from the frontline on 18 September due to further losses. It had flown 194 sorties and scored 36 kills for the loss of 13 P-40Es, with seven pilots killed and five wounded. One of the wounded was the unit CO.

By September 1942 Maj Naidenko had scored a further 5 individual and 13 group victories to add to his pre-war kills. On 5 September he was shot down during a dogfight and strafed by an Fw 190 whilst in his parachute harness. Grievously wounded, the ace had to have a leg amputated. However, Naidenko, who was made a HSU on 21 April 1943, eventually returned to his regiment and flew more missions, increasing his score to 10 individual and 29 shared victories by VE-Day.

Another of 126 IAP's pre-war veterans was Capt Aleksandr Smirnov, who claimed six individual and three shared kills with 22 IAP during the Battle of Khalkhin Gol. Joining 126 IAP in early 1941, he flew 98 ground attack missions and was credited with 13 individual and 8 shared victories during the defence of Stalingrad and Moscow. Information about Smirnov's subsequent career has failed to come to light, and it appears that he fell out of favour with his superiors, perhaps by being shot down and captured in early 1942. Smirnov did not receive the HSU, although in the early 1990s his achievements were belatedly acknowledged when he was posthumously made a Hero of the Russian Federation.

Jnr Lt Stepan Ridnyi also enjoyed early success with 126 IAP flying P-40Bs, the pre-war pilot having first seen action in both MiG-3s and I-16s as his regiment attempted to slow down the German advance. Usually flying between six and eight sorties a day, Ridnyi returned to base on one occasion with 200 holes in his fighter. During 20 days of non-stop combat in July 1941, he claimed eight victories, but also had to force-land



A Tomahawk II of 126 IAP is inspected prior to being started up in preparation for a mission over the Western Front in late 1941. The aircraft's underwing stars have been applied directly over the painted-out RAF roundels, which appear to have been obscured with white paint. The aircraft's conspicuous dark earth and olive drab camouflage remained untouched for the first few months of the Tomahawk's service with the VVS, as groundcrews had no spare time to repaint the uppersurfaces in winter white (via G F Petrov)

Tomahawk II AH965 was one of those flown by ace Stepan Ridnyi of 126 IAP during the winter of 1941-42 (via G F Petrov)



three times. Ridnyi was awarded the HSU on 9 August and was promoted to senior lieutenant.

Following his unit's conversion to the Tomahawk, Ridnyi shot down He 111s on 5 and 14 December, followed by a Bf 109 and an Hs 126 on 3 February 1942. Twenty-four hours later he was credited with the destruction of a Ju 52/3m, as well as a shared kill in a second Junkers transport. Ridnyi's brief career as a fighter pilot came to an end on 17 February 1942 when his Tomahawk (AK325) suffered engine failure on take-off and crashed, killing the ace. By the time of his death Ridnyi had flown more than 100 sorties and claimed 10 individual and 11 shared victories, of which 5 individual and 1 shared kills were achieved in the Tomahawk.

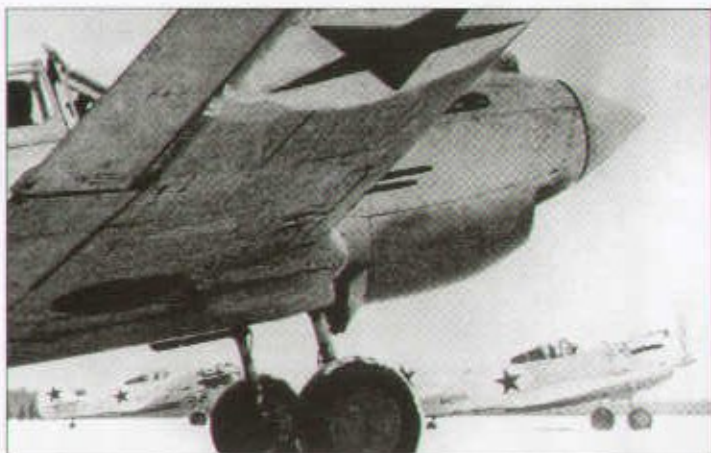
Pyotr Belyasnik was another ace who switched from MiG-3s to P-40Bs with 126 IAP, and he claimed seven kills with the Tomahawk during the defence of Moscow, followed by four more over Stalingrad. By February 1943 he had been promoted to major and designated the regiment's lead navigator. Receiving the HSU on 28 April 1943, Belyasnik survived the war with 250 sorties and 9 individual and 17 shared kills to his credit.

Two other outstanding pilots flying P-40Bs with 126 IAP were Lts Ivan Levsha and Semyon Levin, who, on 18 January 1942 while flying as a pair, engaged nine Bf 109s and shot down two of them. While their ultimate fates remains uncertain, by May 1942 Levsha had scored 14 individual victories and Levin nine.

126 IAP's Lt E E Lozovoi also scored 16 victories during this period, including two Bf 109s shot down on 22 January 1942. Like Levsha and Levin, Lozovoi claimed the majority of his kills flying P-40s.

The next regiments to convert to the Tomahawk were 154, 159 and 196 IAPs, all of which were based on the Northern Front near Leningrad. Previously equipped with I-16s and MiG-3s, 154 IAP arrived at 27 ZAP on 20 September 1941 and returned to Leningrad on 26 November. Once back in action, 154 IAP found itself co-located with 159 IAP primarily because of the general shortage of P-40Bs, and their spare parts. These units were joined shortly thereafter by 196 IAP, and together they formed an operational group dedicated to protecting the Road of Life across frozen Lake Ladoga, which provided the only access to the besieged city of Leningrad in the winter months from 1941 to 1943.

Commander of 154 IAP was Battalion Commissar Aleksandr Matveyev, who had attended flying school in 1933 and later became a commissar. He first saw combat at Khalkhin Gol, where he scored two individual and five shared aerial victories. By June 1941 Matveyev was a regiment commissar with 17 IAP, and he soon scored his first victory defending Moscow. On 14 November he was sent to 154 IAP as the regiment's new commander, joining the unit just prior to it returning to the front with its new Tomahawk fighters.



Ridnyi's AH965 is seen here after it had been 'winterised' with white paint. This photo was taken in January 1942 (via G F Petrov)

Aleksandr Matveyev (who claimed 14 kills) of 154 IAP poses by the nose of his Kittyhawk. Notice the white camouflage freshly applied in patches over the aircraft's dark earth and olive drab finish (via G F Petrov)





Although this pilot has been identified as Maj Aleksandr Matveyev during the summer of 1942, he appears to be wearing captain's insignia, when he should have the three bars of a lieutenant colonel! (via Kulikov)

This particular Kittyhawk I was one of around 40 that were fitted with Klimov M-105Ps due to a shortage of Allison engines. Also note the RS 82 rocket rails (via G F Petrov)



Based at Podborov'e and tasked with providing fighter escorts for transport aircraft plying the air bridge into the besieged city of Leningrad, the regiment flew 309 sorties in December. Although this may not seem much flying for an entire regiment of aircraft, it has to be remembered that during December at that latitude nocturnal conditions prevail for almost 24 hours a day.

On 1 January 1942, 154 IAP redeployed to Plekhanovo airfield to protect the bridges across the Volkhov River and support the impending spring offensive. On the eve of the latter, Matveyev was promoted to lieutenant colonel (on 13 April).

Unlike on most other fronts, where units routinely moved from one base to another as the frontline shifted forward and back, regiments assigned to the Leningrad-Volkhov Front generally tended to stay put. They were, in turn, regularly supplied with replacement crews and aircraft flown in from training bases in the east.

By March 1942, 154 IAP had a mixed force of seven Tomahawks and seven Kittyhawks on strength, although the regiment had few spares for these machines. Wear and tear on the Allison engines was particularly high, and this duly sidelined many of the P-40s. In desperation, Matveyev ordered the base's air repair depot to install surplus Klimov M-105P engines stripped from LaGG-3s into the grounded Kittyhawk airframes. These aircraft were also equipped with four rails for RS-82 rockets.

About 40 P-40s were eventually fitted with Soviet engines, and they were used by both 154 and 196 IAPs during 1942. Aside from their distorted nose profiles, these aircraft also had their top speeds reduced by 7 mph. These shortcomings were outweighed by the fact that additional fighters were now available to hard-pressed units in the frontline.

During the spring and summer, 154 IAP suffered heavy losses whilst performing both ground attack and air combat missions. On 21 November the unit was redesignated 29 GIAP, and the following month it re-equipped with Yak-7s.

On 6 May 1943 Matveyev was promoted to colonel and transferred to division headquarters, from where he flew only a handful of combat missions. His victory tally is unclear, but he may have claimed as many as six individual and nine shared kills (mainly in P-40s).

The two most outstanding pilots to serve with 154 IAP during its P-40 phase were Pyotr Pokryshev and Pyotr Pilyutov. The latter had joined the Army in 1928 and subsequently attended aviation technical school in 1932. Two years later Pilyutov had participated in the rescue of the crew of the Soviet steamship *Chelyuskin*, which had foundered in Arctic waters on 13



The pilot in this photograph is definitely Lt Col Matveyev, his collar insignia clearly visible. He is standing next to the scoreboard of his Kittyhawk I during the summer of 1942 (via G F Petrov)

February 1934 after having its hull crushed by ice. Pilyutov was crew chief for Vasilii Molokov, who was one of seven pilots involved in the rescue to receive the very first HSUs awarded – this title was created in the wake of the *Chelyushkin* episode.

In 1935 Pilyutov earned his wings at the Kacha Military Aviation College, and in the summer of 1938 he fought Japanese aircraft over Lake Khasan, in Mongolia. He saw further action during the Winter War in 1939-40, claiming six victories. By June 1941 Pilyutov had been promoted to lead the 4th

Sqn within 154 IAP on the Leningrad Front – his regiment had been one of the first to receive MiG-3s. Rising through the ranks to the post of deputy regimental commander, by March 1942 Pilyutov was a major.

Known for his enthusiasm towards new technology, and particularly radios, which he described as 'a second set of eyes', Pilyutov was keen to get his hands on the Tomahawk. He was also one of the first Soviet pilots to adopt the 'pairs' formation based on a unit of two fighters, rather than the clumsier flights of three or six.

Pilyutov fought his most dramatic battles over Lake Ladoga during the winter of 1941. On one such mission he engaged a yellow-nosed Bf 109F that was identified by the fuselage number 'Yellow 19'. The fighter (possibly from JG 54) was flown by a highly skilled pilot and the combat ended indecisively. Pilyutov encountered this same foe several times over coming days, and fought a series of duels which always ended the same way. One such clash lasted 30 minutes, during which time both pilots inflicted damage on each other before the engagement ended in a draw.

A few days later, on 17 December, Pilyutov flew his 170th mission. Strapped into one of the regiment's few remaining I-16s, he was escorting nine Li-2s evacuating children from Leningrad when he engaged six 'Messers' over Lake Ladoga that were trying to intercept the transports. Pilyutov downed two of the Bf 109s, allowing the transports to escape, but the odds were too greatly stacked against him and he was forced to crash-land his badly damaged I-16 on the ice after being shot up by Bf 109 'Yellow 19'.

The wounded Pilyutov was quickly extricated from the wreckage of his machine by Soviet soldiers and rushed to a first aid post, where 20 shell fragments were removed from his body. After four days in the hospital, Pilyutov was back in action, and the hunt for 'Yellow 19' resumed. Upon his return to base he discovered that one of his victims on the 17th had been a Bf 109F, which had only just arrived on the Leningrad Front. When communist soldiers examined the wreckage of the downed fighter they found 15 victory markings, including one Soviet.

Finally, on 23 January 1942, Pilyutov succeeded in shooting down 'Yellow 19' after another harrowing dogfight. However, before he could follow his kill to the ground, he was forced to break off and take evasive



154 IAP ace Maj Pyotr Pokryshev also poses with Lt Col Matveyev's Kittyhawk I. Just why he was photographed with this aircraft is unclear, as his own fighter ('White 50') was equally as star-studded by the time this shot was taken at Plekhanovo airfield in the summer of 1942 (via G F Petrov)

154 IAP was still operating a small number of Tomahawk IIs alongside its Kittyhawk Is at Plekhanovo during the summer of 1942. This combat-weary veteran is seen just prior to commencing its take-off run (via G F Petrov)



action to avoid another pair of German fighters. He later spotted the smoking remains of the Bf 109E on the ground.

Years later, while stationed in Berlin, Pilyutov struck up a conversation in a tavern with an ex-Luftwaffe pilot, and he related his encounters with the ace that flew 'Yellow 19'. His German companion was very interested in what he had to say, and seemed to know quite a bit about the actions related by the Soviet pilot. However, he disillusioned Pilyutov when he told him that *he* had been flying the

Bf 109 in question, and that he was no ace! The pilot of 'Yellow 19' had survived his crash-landing only to be taken prisoner. After recovering in a Soviet hospital he had entered captivity, where he learned to speak Russian, and ultimately ended up living in the Eastern Zone post-war.

Pilyutov was awarded the HSU on 10 February 1943, and by VE-Day he had scored 17 individual and 4 shared kills, in addition to those claimed during the Winter War. His tally of 1945 combat sorties made him the most experienced pilot of World War 2 on either side, beating even the legendary Hans Ulrich Rudel's 1700 sorties. When he retired in 1955 with the rank of colonel, Pilyutov had amassed a career total of 8788 sorties in military aircraft.

Pyotr Pokryshev graduated from flying school in 1935, and his first action came with 7 IAP in the Winter War, when he was twice shot down by flak – he also claimed two kills. By June 1941 he was a senior lieutenant with 154 IAP, and by late July he had scored five more victories in I-16s.

From November onwards Pokryshev flew the Tomahawk, and under his command, his squadron flew 950 missions and shot down 30 aircraft for the loss of six P-40s and four pilots. Switching to the Kittyhawk in March 1942, Pokryshev's unit was eventually issued with Yak-7s in January 1943. The following month Pokryshev was awarded the HSU.

With the completion of his 282nd mission and the scoring of his 22nd individual victory during the course of 50 aerial combats, the veteran ace was awarded his second HSU on 24 August 1943. Pokryshev had by then been promoted to major and given command of 159 IAP. He ultimately survived the war, having flown 309 missions and fought 77 aerial combats. Pokryshev's final victory tally stood at 31 individual and 7 shared kills.

Another ace to enjoy success flying P-40s with 154 IAP was Lt Andrei Chirkov. Also a pre-war pilot, he was shot down over Finland during the Winter War but evaded capture and



Although Capt Parfenov of 196 IAP was not an ace, this photograph is worthy of inclusion as it confirms that at least one Kittyhawk was flown in frontline service in a metallic finish, rather than in winter white (via G F Petrov)

returned to Soviet territory. Chirkov was flying I-16s and Yak-1s with 158 IAP when Germany invaded the USSR, and he had claimed seven victories (but been shot down once and wounded twice) by the time he was transferred to Tomahawk-equipped 154 IAP in late 1941.

On 20 January 1942 Chirkov carried out the first ramming attack in a Tomahawk, colliding with an aircraft he mistakenly called an He 113. Unfortunately for the Soviet ace, he baled out behind German lines and had to spend two weeks exfiltrating back to friendly territory.

Switching to the Kittyhawk soon afterwards, Chirkov continued flying the Curtiss fighter until the regiment transitioned to the Yak-7 in 1943. By then a major, he was awarded the HSU on 4 February 1944 and posted to 196 IAP as its CO in the spring of 1944. This unit was equipped with both P-40Ns and P-39s, and on 19 June Chirkov downed a Finnish fighter before falling victim to 75-kill ace Capt Hans Wind. Baling out behind enemy lines yet again, this time Chirkov not only evaded capture but also brought two Finnish prisoners back with him! By war's end he had flown 420 missions and scored 29 individual and 9 shared kills.

Fellow P-40 ace Fyodor Chubukov joined the Army pre-war and was posted to 154 IAP after completing his flying training. Based near Leningrad at the time of the German invasion, he initially flew I-16s and MiG-3s in combat before his regiment switched to P-40s. Chubukov was wounded on 15 March 1942, but soon returned to action and scored two kills on 7 July 1942, followed by two Ju 88s on 3 September.

In January 1943 154 IAP received Yak-7s, and by May Chubukov had flown 296 missions. He had flown in 52 aerial combats and scored 17 individual and 5 shared victories by this point. Awarded the HSU on 19 August 1944, Chubukov claimed four Fw 190s in a single mission the following month. By May 1945 he had completed well over 300 missions and scored 34 individual and 5 shared kills. Unfortunately Chubukov's wartime records do not indicate how many of these victories were claimed in the P-40 – at least four, and almost certainly more, were credited to him whilst flying the Curtiss fighter.

The outstanding pilot of 196 IAP was Capt Aleksandr Bilyukin, who had completed flying school in 1941 and been sent directly to 196 IAP as a junior lieutenant. This regiment spent three years defending Leningrad and the 'Road of Life' across Lake Ladoga.

Bilyukin claimed his first victory in July 1941 whilst flying a Yak-1. In early 1942 his regiment received Tomahawks, followed several months later by Kittyhawks. As previously mentioned, 196 IAP was one of the units given P-40Es re-engined with Klimov M-105Ps. During the course of 1943 196 IAP also received P-39 Airacobras as a supplement to its Kittyhawks, before switching entirely to the Bell fighter by year-end.

On 1 August 1943 Bilyukin scored four Fw 190 kills in a P-39, three of the fighters being claimed in a single mission. By war's end he had flown 430 sorties and fought 35 aerial battles, scoring 23 individual and 1 shared victories. Bilyukin had received the HSU on 2 November 1944.

ADDITIONAL P-40 SQUADRONS

When war broke out in the USSR, the Northern Front was defended by 72 SAP-SF at Vacnga, as well as VVS fighter units 145 IAP at Shongui (flying I-16s) and 147 IAP (I-15bis and I-153s) at Murmashi.



Top and Above

These photos show the damage inflicted to ace Aleksei Khlobystov's Tomahawk II during the legendary mission on 8 April 1942 when he rammed two fighters. The insert in the top image is an official photo of Khlobystov (both via G F Petrov)

Khlobystov is seen in 1943 with a P-40K from 20 GIAP (via G F Petrov)



Once 72 SAP-SF had cloned off 78 IAP-SF to fly Hurricanes, the two VVS regiments were next in line for re-equipment. To that end, 147 IAP received a few Hurricanes soon after the naval units had completed their transition, but in December the regiment flew back to Afrikanda and began to receive Tomahawks too. Disposing of its biplanes, 147 IAP flew both Hurricanes and Tomahawks until May 1942, when the arrival of Kittyhawks on the Northern Front allowed the regiment to pass its few remaining Hurricanes onto other units. By then, 147 IAP had been redesignated 20 GIAP (on 7 March 1942).

The most famous pilot to fly P-40s with 20 GIAP was Jur Ii Aleksei Khlobystov, who had completed his flying training and joined 153 IAP in southern Karelia immediately prior to the German invasion. Flying the I-153, he claimed his first kill with this unit when he downed a Ju 87 on

27 June 1941. In January 1942 Khlobystov was transferred to 147 IAP, which had just received its full complement of Tomahawks, and by March he had become a flight commander. On 8 April he was approved for Communist Party membership, Khlobystov receiving his party card in a ceremony held on the flightline.

Several hours later his squadron was scrambled to intercept an attack by 28 Ju 87s and Bf 110s, escorted by Bf 109s. In the ensuing dogfight, Khlobystov shared in the destruction of a Ju 87, before tangling with the fighter escorts. When his guns failed, Khlobystov rammed the tail of a

Bf 110 with his wing, the blow damaging the Tomahawk's right wingtip but tearing the tail section off the Messerschmitt. He was then attacked head-on by a Bf 109, and this time Khlobystov struck the left wing of the German fighter with the same damaged right wingtip. The Bf 109 also crashed. Soon after this outstanding engagement Khlobystov was promoted to captain and given command of one of the regiment's squadrons.

On 15 May, when at the controls of a newly-delivered Kittyhawk, Khlobystov was wounded in the arm and leg by a well-aimed burst from a Bf 109 which

also set his fighter on fire. Despite his injuries, and the terminal nature of the damage inflicted to his aeroplane, Khlobystov rammed one of his protagonists prior to baling out.

With three successful ramming attacks to his credit, Khlobystov was awarded a well-earned HSU on 6 June 1942 whilst convalescing in hospital from his wounds. Following months of recuperation whilst performing non-combat duties, he eventually managed to return to active service with 20 GIAP.

On 13 December 1943, with his score standing at 7 individual victories (including 3 by ramming) and 24 shared victories, Khlobystov was shot down by flak and killed whilst flying his 335th sortie. All but one of his victories had been achieved flying Tomahawks and Kittyhawks.

In April 1942 19 GIAP (formerly 145 IAP until 7 March 1942) swapped its Hurricanes for 20 Airacobras and 10 Kittyhawks, which equipped a third squadron. However, the regiment's pilots preferred the Airacobra, and the Kittyhawks remained little used until replaced by additional P-39s in the autumn of 1943.

Early in 1942 2 GSAP-SF received some Tomahawks to supplement its Hurricanes, and then in March an allocation of Kittyhawks also arrived. At the same time, Boris Safonov and a cadre of veteran naval pilots returned to the regiment from 78 IAP-SF, and the former immediately began flying the Kittyhawk in combat. He duly scored his first victory with the type on 17 May when he downed a Ju 88.

Thirteen days later, Safonov was flying fighter cover for convoy PQ-16 over the Barents Sea with Vladimir Pokrovskii, Pavel Orlov and Dmitrii Amosov when the vessels came under attack from six Ju 88s. The P-40 pilots immediately engaged the aircraft, with Pokrovskii and Orlov each claiming a bomber destroyed and Amosov a Bf 109 shot down. According to monitored radio transmissions, Safonov also downed two of the Ju 88s, and was in the process of destroying a third when he was himself hit either by fire from an escorting German fighter or from his third victim. He was heard to say on the radio 'Got the third – engine hit – ditching'.

Safonov did his best to ditch alongside the escort ship *Kuibyshev*, but he hit the water too far away from the vessel and his Kittyhawk sank straight to the bottom with the ace still strapped into the cockpit.



The pilot standing proudly alongside this well decorated Kittyhawk is believed to be V P Semen'kov, who flew with 19 and 20 GIAPs. Little is known about him, and it is likely that most of the 33 victory stars on this aircraft represent shared kills claimed by other pilots in the unit. Both regiments tended to allot victories as shared rather than individual kills, thus remaining true to the communist spirit of collectivism (via Kulikov)

Capt Georgii Gromov of 20 GIAP poses with the scoreboard on his Kittyhawk in 1942. The four red stars with a white outline represent individual kills, while the eleven in white outline only were shared victories. By war's end Lt Col Gromov had scored 18 individual and 11 shared kills, received the HSU and been made CO of Yak-equipped 515 IAP (via Kulikov)





Lt Col Boris Safonov climbs into his Kittyhawk in the early spring of 1942 (via G F Petrov)

Aces Vladimir Pokrovskii (left) and Pavel Orlov of 2 GSAP-SF pass the time while waiting for a scramble in mid 1942 (via G F Petrov)



Safonov was credited with three victories on his final flight, taking his tally to 39 kills (14 shared) during the course of 234 sorties and 34 aerial combats. He was posthumously awarded a second HSU on 14 June 1942, thus becoming the first Soviet ace to receive this honour twice. Shortly afterwards, Safonov's name was bestowed on 2 GSAP-SF as part of its official title. To this day, Russian warships of the Northern Fleet dip their flags when sailing by the spot where Safonov's fighter ditched.

Pavel Orlov was one of Boris Safonov's wingmen on the ace's final flight, this veteran pilot having joined the Navy in 1933. After completing flying school, he was retained as an instructor until finally posted to 72 SAP-SF in October 1941. Orlov's first victory came in January 1942 when he shot down an Hs 126 whilst flying a Hurricane, and he followed this up on 15 April with a Ju 87 and a Bf 109 on 8 May—the latter was one of three to fall in Vichany Bay on this date. The latter two kills were claimed with the P-40. Orlov also downed a Ju 88 during the mission that saw Safonov killed.

Eventually promoted to the rank of captain, and deputy squadron leader, Orlov had completed 276 sorties, fought 24 aerial combats and downed 11 aircraft by the time he was killed in action flying a P-39 on 15 March 1943. He was posthumously awarded the HSU on 24 July 1943.

Also accompanying Safonov on his final mission was future ace Vladimir Pokrovskii, who had joined the Navy in 1937 and completed flying school in 1940. By June 1941 he was a flight commander in 72 SAP-SF's 4th Sqn. Pokrovskii claimed his first victory on 15 September when he downed a Ju 87 whilst flying an I-16.

When 78 IAP-SF was established in order to fly Hurricanes in October 1941, Pokrovskii was one of the experienced pilots who accompanied Boris Safonov to the new regiment. In March 1942 he returned with Safonov to their old regiment.

Pokrovskii also downed a Ju 88 on the fateful 30 May mission, having by then been promoted to captain after completing 350 missions and surviving 60 aerial battles, during which he had claimed 12 individual and 6 shared victories. Awarded the HSU on 24 July 1944, Pokrovskii survived the war.

The final participant in Boris Safonov's last flight was Dmitrii Amosov, who also subsequently became an ace. Having completed flying school in December 1940 and been sent to 72 SAP-SF, he was



Capt Ivan Tushev of 191 IAP is helped into his parachute harness by his mechanic on the Leningrad Front during the summer of 1943. Tushev was awarded the HSU on 2 November 1944 after completing 359 sorties and scoring 15 individual and 1 shared victories (some of these were claimed in the P-40). By the end of the war he had flown 534 missions and switched to the La-5FN (via Kulikov)

Capt Aleksandr Kovalenko of 2 GIAP-SF is seen with his Kittyhawk in the spring of 1942. His score stood at eight kills when this photograph was taken, and he was made a HSU several weeks later (via G F Petrov)



amongst the cadre of pilots who transferred to 78 IAP-SF in October 1941 and were then posted back to 2 GIAP-SF in March 1942. Amosov shot down a Bf 109 during the 30 May clash, but moments later his P-40 was bounced by a Bf 110 and he was forced to bale out. He enjoyed better luck than Safonov, however, as he was plucked from the icy water by an escort ship.

By the spring of 1944 Amosov had attained the rank of captain and been given command of a squadron within the P-39-equipped 255 IAP-SF. On 11 May, while escorting torpedo-bombers, his P-39 was hit by flak and Amosov crashed his stricken fighter into a German ship and was killed. By the time of his death he had completed 231 sorties and scored nine victories, all of them whilst flying lend-lease aircraft.

Aleksandr Kovalenko was yet another ace to enjoy success with the P-40 whilst serving with 2 GIAP-SF. Having joined the Navy in 1932 and completed flying school the following year, he first saw action during the invasion of eastern Poland in September 1939, followed shortly thereafter by the Winter War. By June 1941 Kovalenko was a captain, commanding the 1-16-equipped 2nd Sqn of 72 SAP-SF.

Wounded in action in July, Kovalenko spent a brief period in hospital prior to returning to his regiment in August and scoring his first victory on the 9th of that month. In October he was among the pilots transferred with Safonov to 78 IAP-SF, and he duly returned with him in March 1942. That same month Kovalenko was awarded the British Distinguished Flying Cross for his exploits in the Hurricane.

On 15 April 1942, whilst leading his P-40-equipped squadron, Kovalenko intercepted a large formation of Ju 87s, with a Bf 110 escort. He duly shot down two dive-bombers, whilst his unit claimed four Ju 87s and two Bf 110s destroyed overall for no losses. On a later mission that same month, Kovalenko downed a Bf 110 which he noted had a red dog painted on its nose – almost certainly the Dachshund marking of JG 5's *Zerstörer Staffel*.

By the beginning of May 1942 Kovalenko had completed 146 combat sorties and had shot down 8 aircraft in 22 aerial combats. Receiving the HSU the following month and promotion to major, Kovalenko survived the war as a lieutenant colonel, with 13 individual and 6 shared victories from 207 sorties to his credit.

— OTHER P-40 ACES —

As the leading fighter regiments such as 19 and 20 GIAPs and 2 GIAP-SF received newer fighters, including the Airacobra, they passed on their Hurricanes, Tomahawks and Kittyhawks to second line regiments such as 767, 768 and 769 IAPs of 122 IAD, defending the Karelian Front. Most pilots from these units rarely engaged Axis aircraft, although there were exceptions.

One such pilot was Boris Nikolaev, who had joined the Army in December 1939 and completed flying training late the following year. Posted to 158 IAP in November 1941, he was one of the pilots assigned to newly-formed 768 IAP when 122 IAD-PVO was organised two months later to defend northern Karelia, Murmansk and approaching PQ convoys. Nikolaev's unit was initially equipped with Hurricanes, although these were soon replaced by Kittyhawks.

Nikolaev was quickly promoted to deputy squadron commander, with the rank of senior lieutenant, and he later became a squadron CO.

On 28 March 1943, in a battle over Murmansk, Nikolaev achieved a rare ramming victory when he came to the aid of a fellow pilot who was being attacked by a Bf 109F. Hitting the latter with the right wingtip of his Kittyhawk, Nikolaev was then forced to take to his parachute. The Messerschmitt was one of five victories credited to him by war's end.

Another future ace to spend time with 768 IAP was Viktor Ivanov, who had been posted to 147 IAP after completing his flying training in 1940. Achieving one of the first Bf 109 kills in the Far North whilst flying an I-153, from February 1942 Ivanov was a member of 768 IAP, with whom he flew Hurricanes and Kittyhawks.

In August 1942 Ivanov was selected as one of the founding pilots of 910 IAP (148 GIAP from 9 October 1943), which was initially equipped with Hurricanes and Kittyhawks, but later received various models of the ubiquitous Yak fighter. Made commander of the 2nd Sqn, Ivanov was duly promoted to captain.

Although 910 IAP was a PVO regiment, it was assigned to Army, as opposed to city, air defence and sent to trouble spots all along the front to provide protection for troop concentrations. Whilst serving with this roving regiment, Ivanov fought over Stalingrad, Kursk, the Ukraine, Poland and finally Germany.

Perhaps the ace's most memorable victory came on 3 January 1943, when he and his wingman spotted a rarely seen Fw 200 Condor through a break in the clouds. Diving on the four-engined transport, Ivanov quickly shot it down. Once Soviet soldiers reached the wreckage, the Fw 200 proved to be an even bigger prize than it had first seemed, for the troops recovered a significant archive of communications signals from the *Wehrmacht's* besieged 6 Army. Unfortunately, because Ivanov and his regiment commander enjoyed a poor relationship, the latter refused to allow the ace credit for the victory.

In March 1944 Ivanov led his squadron in an interception of 27 Ju 88s that were approaching their target in three flights of nine aircraft. Having destroyed ten bombers, the Soviet pilots were then ordered to repulse a second formation, despite having fired all their ammunition and their fighters being almost out of fuel. Ivanov gave the command 'Tight formation. In formation – RAM!' However, the sight of Soviet fighters caused the German bomber crews to flee eastwards away from the P-40s.

By June 1944 Ivanov had flown 556 combat sorties and fought 33 aerial battles, during which he had shot down 14 aircraft and shared in the destruction of four others. Awarded the HSU on 22 August 1944, he scored his last victory over Küstrin in April 1945 when he shot down an Fw 190. By war's end Ivanov had flown 750 sorties, survived 50 aerial combats and scored 20 individual and 4 group victories.

In October 1942 436 IAP was re-equipped with the P-40K, the regiment also welcoming ex-191 IAP I-16 and Hurricane ace Snr Lt Nikolai Kuznetsov into the fold at the same time – the latter would serve as deputy commander of the unit's 1st Sqn.

In November 436 IAP was assigned to 239 IAD and sent to the North-western Front. Its new airfield was in a small forest clearing by Lake Seliger, and although well-camouflaged, the base's short runway proved challenging to say the least. The regiment was flying along a stable sector of the front which had a reduced Luftwaffe presence, although the German fighters in the region were flown by some of the best pilots in-theatre.

Twenty-four hours after moving into their new home, eight leading pilots from 436 IAP – including Kuznetsov – performed a familiarisation flight over the front. They were accompanied by aces Georgii Zimin and Ivan Likhobabin of 485 IAP, this unit having already established itself at the same airfield. During the course of the flight they were challenged by ten Bf 109s, and the Soviets downed two German fighters for no losses.

Late in the afternoon of 26 December, Kuznetsov took part in a mission escorting Il-2s. On the way to the target the fighters easily chased off a group of Bf 109s, but the return flight was attacked by a number of German aircraft. Kuznetsov came to the aid of one of the *Sturmoviks*, which was trying to escape from a Bf 109 that had latched onto its tail, the ace succeeding in shooting the German fighter down for his 26th kill (14 individual and 12 shared). Kuznetsov's mission report read as follows:

'The eight *Sturmoviks* flew at an altitude of one kilometre, with three pairs of fighters arranged in "steps" about half-a-kilometre higher, keeping a vigilant watch. Above us flew Pavel Shevelyov's flight. As we approached the frontline, we were advised by the command post that two groups of enemy fighters were approaching our target area.

'About six kilometres from the western region, I spotted two pairs of Messerschmitts. The enemy's plan for a surprise attack was foiled, as Vasilii Dobrovol'skii and I chased them away from the *Sturmoviks*. Suddenly, we were over the battle zone, and there were explosions of mines and shells, marked by black columns of earth and smoke.

'At a height of about 1000 metres, above a small forest where our reconnaissance had identified that enemy reserves were gathering, the *Sturmoviks* formed a circle, dropped their bombs and, one after another, dived to strafe the enemy. They pulled out of their dives almost at ground level, before climbing back up at an attitude of 30–40 degrees to repeat the procedure, raining lead down on the enemy on every pass. A great fire erupted in the forest. Judging by the tremendous column of black smoke reaching up to the sky, it seemed a fuel point had been hit.

'Light-calibre anti-aircraft guns began to fire from the forest. One of the Il-2s turned a little to the right

Snr Lt Nikolai Kuznetsov of 436 IAP is greeted upon his return to the small airfield at Lake Seliger following his successful mission of 26 December 1942 (via G F Petrov)



and dived down the line of fire with its guns blazing, silencing the flak gunners and thus allowing the "flying tanks" to pound the enemy.

The sun descended to the horizon. It became difficult to see through the smoke of the fires and exploding shells, but we still kept all the Il-2s in view. At any moment they might have needed help. On the radio I heard a voice – "Messers!" We had been awaiting their arrival, and were surprised that they had not already appeared. But since the Il-2s were working under the protection of six fighters, the Messerschmitts did not dare attack.

"Last pass" came the command from the leader of the Il-2s. Withdrawal of the *Sturmoviks* from their attack was the decisive moment for the escorts. When flying in a circle over the target area, the Il-2s could protect each other. However, on departure they became stretched out in a long column. The *Sturmoviks* particularly at risk during this stage of the mission were the trailing and separated aircraft, who would need a fighter screen to allow them to escape.

As the Ilyushins completed their work and formed their column, two of my fighters flew to the head of the formation while four remained astern of the *Sturmoviks*. At this point I noticed that the last of the Il-2s was beginning to fall behind the others. Its engine had obviously been damaged by enemy flak over the target area, and periodically it emitted puffs of black smoke. The crew did not respond to our radio calls either.

My wingman and I tucked in tight with the *Sturmovik* just as two "Messers" attacked. Our defensive fire made them turn away to the side. Our earphones were then filled with a voice shouting "Messerschmitts attacking the *Sturmoviks*", followed by another warning – "Enemy fighters!" The leader of the *Sturmoviks* gave the command "Into a circle" and he immediately commenced a left hand turn over our own territory. All the others followed his lead, but they had not yet closed the circle when four "snub noses" (Fw 190s) appeared above them. With alarm, I thought "Where's Pavel's flight?"

A pair of the "snub noses" selected their target, winged over and made a steep dive. It looked like the Ilyushins were in no small trouble when, suddenly, with lightning speed, two Soviet fighters attacked the "snub noses". A trail of fire licked the wingman's aircraft, which shuddered, turned over and dived almost vertically into the ground. Shevelyov's score – well done Pavel!

Meanwhile, the Messerschmitts continued to attack the *Sturmoviks*, not allowing them to close their circle. My machine's engine was at full power and maximum speed, but it seemed that my aircraft approached the enemy only very slowly. The German suddenly opened fire on one of the straggling Ilyushins. Recognising the danger, the Il-2 pilot made a sharp left bank in order to reduce the distance and catch up to the other Ilyushins, thereby closing the circle. The "Messer" turned directly after him, preparing to fire, but then the fascist blundered right into my gunsight. I fired a long stream of tracers into the cabin and the "Messer" tumbled earthward.

The *Sturmoviks*' circle closed at an altitude of 300 metres, but the German fighters, vexed by their losses, continued to fling themselves at the bombers from all sides. However, they no longer posed a great danger to the Il-2s. Soon, the Germans gave up the fight and withdrew. The

damaged *Sturmovik* made it to the forward area and force-landed in our territory. The rest returned to their airfield at low level, supported all the way home by our fighters.'

Upon returning to base, Lt Kuznetsov reported the successful completion of his mission and was credited with the destruction of a Bf 109. This kill took his tally to 26 victories (14 individual and 12 shared), and earned Kuznetsov the congratulations of his regiment commander. The latter duly noted that the ace had scored his 26th kill on his 26th birthday, on the 26th day of the month!

Pasha Shevelyov's Fw 190 kill also caused much commotion at VVS headquarters, as the type was still very much a mystery to Soviet forces – it had only been introduced to this theatre several months earlier.

That night 436 IAP enjoyed a party in the mess in celebration of a successful mission, with fresh tablecloths being laid out and party lights strung up. Instead of the usual sauerkraut, the pilots dined on cucumbers and salt-tomatoes, large slices of smoked bacon fat and other appetisers, all washed down with carafes of spirits. Kuznetsov presumed the celebration was in honour of Pavel Shevelyov, who had downed one of the first Fw 190s to fall in the region. However, when Kuznetsov took his place at the table, he was presented with a huge cake marked with chocolate figures '26-26' for his 26th kill on his 26th birthday on 26 December 1942.

In January Kuznetsov was again escorting Il-2s when he observed two Bf 109Fs nearing his charges. Together with his wingman, Galdobin, he attacked and shot one of them down. However, his wingman's P-40 in turn fell to the second enemy aircraft, and moments later four more Bf 109Fs intervened. He destroyed a second Messerschmitt, but was himself forced to crash-land in woods between the lines. Wounded in the chest, and with his left arm broken and totally useless, Kuznetsov relied on partisans to return him to friendly lines, and hospitalisation.

In late March 1943 he rejoined his regiment, which was redesignated 67 GIAP shortly afterwards and removed from the frontline in order to re-equip with P-39s. Kuznetsov was awarded the HSU on 1 May 1943 and promoted to captain, having by then flown 213 sorties and scored 17 personal and 12 shared victories.

Kuznetsov continued flying P-39s for the rest of the war, scoring his last two victories over Berlin in April 1945. On the 18th he shot down two fighters, and two days later he destroyed an Fw 190 with cannon fire and forced a second one to crash after hitting its tail with the propeller of his P-39. Following this unintentional ramming, Kuznetsov was forced to crash-land, suffering concussion in the process.

His final victory tally is uncertain, although most historians credit him with 36 individual and 12 shared victories, scored during 400 sorties.

Pilots receive political education at an airfield somewhere on the Leningrad Front in the summer of 1943. Note the groundcrewman uncovering the P-40M in the background (via G F Petrov)





In 1952 Kuznetsov led a regiment of MiG-15s fighting in Korea, flying a further 27 sorties, although he failed to gain any additional kills.

Snr Lt Vasilii Dobrovol'skii was a friend of Kuznetsov, having flown with him in 191 IAP until they were both transferred to 436 IAP in June 1942. Whilst serving with the latter unit, Dobrovol'skii briefly flew the Hurricane prior to the regiment converting to the Kittyhawk. Three days after 191 IAP had been designated 67 GIAP, Dobrovol'skii was killed in action. He had engaged an Fw 190 in a head-on duel, and neither pilot swerved – Dobrovol'skii had already scored a previous victory by ramming. Credited with 16 individual and 3 shared victories in 250 sorties, half of Dobrovol'skii's victories were scored in the I-16 and the remainder gained flying the Hurricane and Kittyhawk.

TOP P-40 ACE

Stepan Novichkov was perhaps the most successful of all Soviet pilots to fly the P-40, at least in terms of the number of aerial victories he scored. After finishing flying school in early 1942, he was sent to 436 IAP in May, where he flew the Hurricane until October, when the unit re-equipped with P-40Ks. During his first flight over the frontline, Novichkov was shot down and wounded in the leg, although he was soon back in the cockpit. Having scored his first victory in July 1942, Novichkov went on to claim six more during the battle for Stalingrad.

In early 1943 Novichkov's regiment switched to P-39s, and the ace was rewarded with the HSU on 4 February 1944 for his numerous successes in lend-lease types. By the end of the war Novichkov had risen from the rank of junior lieutenant to lieutenant colonel, and had flown 315 sorties and scored 29 victories. Of the latter, 19 had been claimed whilst flying the P-40, making Novichkov the top-scoring Soviet ace with the Curtiss fighter.

P-40M-10 43-5925 was being flown by Jnr Lt V A Revin of 191 IAP when it was forced to land in Finnish territory on 27 December 1943. The Finns soon placed the fighter into service as aircraft KH-51 (via G F Petrov)

P-40Ms of 191 IAP provide a backdrop for a friendly tussle between fighter pilots on the Leningrad Front during the winter of 1943 (via G F Petrov)



Although the first Tomahawks and Kittyhawks supplied to the USSR had gone to units operating in the north over the Karelian, North-western, Volkhov and Kalinin fronts, by early 1942 Curtiss fighters had also begun to arrive in the south following increased deliveries of lend-lease aircraft via a new delivery route. The Americans had briefly attempted to fly P-40s along the AISib (Alaska-Siberia) T race from Alaska, across Siberia and then to western USSR. However, the fighter's Allison engine proved unable to manage the extreme cold, and this route was abandoned for P-40s following the delivery of just 48 aircraft.

Instead, aircraft were sent eastwards through Iran and then onto the Soviet Union, arriving at 25 ZAP in Adzhi-Kabul, near Baku, in Azerbaijan. This regiment became the centre for the importation of thousands of lend-lease fighters, and it also trained countless pilots how to fly Hurricanes, Spitfires, P-39s and P-40s.

The first frontline-assigned regiment in the south to receive P-40s was 45 IAP, which had begun the war guarding the Baku oilfields. Kept in reserve until late 1941, the unit fought a rearguard battle from the Crimea back to the Caucasus until it was withdrawn to rebuild in September 1942. Unfortunately, there was a shortage of fighters at this time, and it was not until 23 November that 45 IAP finally started training on its new machines. While the regiment was promised Airacobras, a lack of P-39s meant that several units, including 45 IAP, were equipped with two squadrons of 21 Bell fighters and one of nine P-40Es.

On 16 February 1943 45 IAP returned to the front, and during the next two months its pilots claimed 118 victories for the loss of seven P-39s shot down and eight damaged. Only a single P-40E was destroyed, in a flying accident, during this period. This solitary loss also reflects the fact that the P-39 saw considerably more combat, and was responsible for the bulk of the victories.

When 45 IAP was redesignated 100 GIAP on 17 June 1943, it received sufficient P-39s to allow it to pass on the remaining P-40Es to 16 GIAP and 298 IAP, although these units did not make much use of them either.

However, if the VVS found the P-40 too antiquated for its units to use in the frontline, in the south, the Black Sea Fleet had little choice but to throw the Curtiss fighter into action from 1943.

Konstantin Denisov's 7 IAP-ChF began receiving Kittyhawks in early 1943, and in October of that year 62 IAP-ChF was also issued with P-40M/Ns. Both regiments used the aircraft to protect shipping convoys, as well as to escort patrol aircraft and attack German vessels – little aerial combat was undertaken, however.

The ranking lend-lease ace in this theatre was Konstantin Denisov, who had joined the Navy in 1934 and completed his training at the Eisk Naval Aviation Flying School two years later. Initially sent to the Far East, where he flew four-engined TB-3 bombers, Denisov eventually managed to have himself reassigned to fighters. In 1940, he

These two Kittyhawk Is of the Black Sea Fleet are seen covering a pair of patrol boats searching for German vessels during the summer of 1943 (via G F Petrov)



was transferred to a Black Sea Fleet regiment, and Denisov did not see serious combat until the night of 30 August 1941, when he scored his first victory. He then became involved in the desperate battle for Sevastopol and the Crimea.

During the first year of the war in the east Denisov was promoted to captain and scored six victories. After the fall of Sevastopol, he was made CO of 7 IAP-ChF, which was based at Anapa with a mixed fleet of Yak-1s, LaGG-3s and MiG-3s. During the autumn of 1942 the regiment fought a series of aerial

battles, but it also had many of its aircraft siphoned off to reinforce other fighter units in the thick of action further north. By now Denisov had scored seven individual and six shared victories, and he was awarded the HSU on 23 October. The following month he was promoted to major.

In early 1943 7 IAP-ChF began to receive a number of Kittyhawks to supplement its LaGG-3s. Denisov noted in his diary that they must have come from North Africa judging by their sand-coloured camouflage.

On the night of 22 April 41 Ju 88s attacked the port of Poti, and Denisov and one other pilot capable of nightflying scrambled and shot down a bomber. This was the ace's sole claim with the Kittyhawk, for in October 1943 he was summoned to the commander of the Black Sea Air flotilla, who designated him CO of P-39-equipped 11 GIAP-ChF.

Although Denisov failed to claim five kills with the P-40, there were two Black Sea pilots who did indeed become aces with the Curtiss fighter. The first of these was Aleksandr Karpov, who graduated from flying school in 1942 and was sent to reconnaissance regiment 30 ORAP-ChF as a junior lieutenant. Two squadrons in this unit used Pe-2s, Il-4s and Bostons for long range reconnaissance, whilst the 3rd Sqn was equipped with fighters for short range reconnaissance and convoy escort.

Karpov, who had flown the LaGG-3 and Yak-1 in training, was assigned to the fighter-reconnaissance squadron, and he had to transition to the Kittyhawk, which had just been issued to the unit.

On 26 June 1943 Karpov downed a Ju 88A while escorting a convoy, and he followed this initial success up with strafing victories on the night of 29 August when he and three other pilots were scrambled to attack German torpedo boats marauding along the coast. Karpov made two strafing runs, which left the vessels burning in the water, while the remaining pilots destroyed a third boat. His second aerial success came 18 days latter when he shot down a Bf 110G while covering Soviet torpedo boats.

On 6 October Karpov flew an aerial reconnaissance mission over the sea lanes and ports as wingman for squadronmate Konstantin Bogdanov, and during the course of the sortie the pilots encountered, and attacked, a 'Hamburg 140' (almost certainly a Bv 138 flying-boat). After several passes Karpov succeeded in shooting the aircraft down.



4 IAD-ChF commander Lt Col Ivan Lyubimov (right) briefs Lt V. A. Lukin of 7 IAP-ChF at Mikha Tskhakaya airfield, on the Georgian coast. Lukin is known to have scored at least five victories, two of which were claimed in the P-40 (via G F Petrov)



This P-40M-5 has been variously identified as being tested at the NII-VVS or assigned to a regiment of the North Sea Fleet. The side number and fin stripes make the latter seem more likely (via G F Petrov)

The following month, on 15 November, whilst flying a lone reconnaissance mission, Karpov reported over the radio that he had discovered a dozen German landing barges. He was twice ordered to go back and check them, and on the second pass his Kittyhawk was hit by flak and badly damaged. Barely making it back to base to crash-land his fighter, Karpov was immediately ordered to strap into another aircraft and lead a formation of Il-2s out to attack the enemy barges.

On the morning of 13 March 1944, with the battle for the Crimea in progress, Karpov was flying as wingman for ace Ivan Marchenko when they encountered a Do 24 flying-boat. This aircraft proved to be a tough opponent, and the two pilots were forced to attack it simultaneously from either side. Karpov shot out the left engine, and the Do 24 finally crashed into the sea, giving him a shared victory. Several hours later, he was leading another patrol with a pilot named Krylov when they encountered a second Do 24 flying beneath clouds. Karpov attacked the machine in a dive and shot it down at close range.

He again saw action over the Black Sea in his P-40 on 13 April when he came to the rescue of a fellow pilot shot down by flak. Karpov quickly summoned help in the form of a Soviet rescue launch, and while the boat was racing to the scene, he held off a Bv 138 flying-boat that was intent on

capturing the Soviet pilot. The ace soon succeeded in shooting the aircraft down, leaving the five German aircrew to be rescued by the Soviet launch along with the Russian pilot.

Karpov's run of success continued on 1 May when he shot down a Ju 52/3m transport off the Crimean coast. Ten days later, whilst patrolling in the same area, he intercepted another German torpedo boat and sank it.

By the end of August 1944, Karpov had completed 251 sorties, and the Black Sea had been cleared

Two unknown pilots are briefed by their commander in front of a P-40N (via G F Petrov)





of enemy opposition. Little combat was now in the offing, which meant that Karpov survived the war with five individual and two shared aerial victories to his credit, as well as the destruction of four enemy torpedo boats. He duly received the HSU on 6 March 1945.

Fellow P-40 ace Ivan Marchenko completed flying school in early 1941 and was in action from June onwards. In December of that year he was shot down into the Black Sea while providing air cover for a convoy re-supplying Sevastopol. Marchenko was soon rescued and able to return to combat following six weeks in hospital. During the summer of 1942 he was again shot down, but this time he landed in Soviet-held territory and returned to his unit on foot.

By June 1944 Marchenko was a captain, and a deputy commander of the 3rd Sqn of 30 RAP-ChF. He had completed 417 reconnaissance, convoy escort and ground attack missions, and detected 15 enemy convoys. Marchenko had also shot down six aircraft. Awarded the HSU on 5 November 1944, he succeeded in raising his final score to seven victories – all of them claimed in the P-40 – by war's end.

As the VVS received more P-39s through lend-lease, and Yak-9 and La-5 fighter production increased, the P-40s were steadily retired from frontline service. According to official records, by January 1945 Curtiss fighters could only be found in frontline service with a single unidentified PVO regiment assigned to frontal air defence. However, many other P-40s still equipped fighter regiments of the national PVO units that were guarding cities in the rear. Indeed, by VE-Day there were still 27 Tomahawks and 844 Kittyhawks assigned to PVO units, although they remained in service only briefly post-war.

Pilots of an unidentified Guards regiment stand proudly with a suitably marked P-40N in the spring of 1944 (via G F Petrov)

KOBRAS

In the wake of the Hurricane and Tomahawk, the British despatched the Bell Airacobra I to the USSR from late 1941 onwards. Although the aircraft was destined to be a virtual failure with the western Allies, it would become one of the great successes of the VVS.

In early 1940 the Anglo-French Purchasing Commission had placed contracts with Bell for 675 examples of its then new P-39, and these aircraft were later transferred to British lend-lease accounts following the fall of France to Germany in June 1940. Once in service with the RAF in June 1941, the Airacobra I (as it was christened by the British) proved to be a great disappointment due to its poor performance at altitudes above 17,000 ft. Quickly removed from the frontline after flying just four missions in October 1941, all the Airacobra Is already in Britain were either passed on to the Soviets or given back to the Americans (who used them in the Pacific as P-400s), with further deliveries from Bell cancelled.

Of the first 124 Airacobra Is shipped to Murmansk in December 1941, 11 were lost in transit. The fighters arrived in the USSR in January 1942, and most were sent to lend-lease training unit 22 ZAP at Ivanovo. However, some were reassembled locally in Murmansk and issued to regiments defending this crucial northern port. Further fighters followed from Britain throughout the early months of 1942.

While it has generally been stated that 212 Airacobra Is were sent to the USSR, of which 54 were lost in transit, newer evidence reveals that in fact 266 aircraft were shipped from the UK, with 212 arriving in Murmansk. As with other lend-lease aircraft, transfer figures are imprecise and often contradictory due to losses en route, poor record keeping and the supply of supernumerary aircraft beyond official orders.

From September 1942 P-39D, K and L variants sent from the USA began to arrive at Adji Kabul, in Azerbaijan, after transiting through Iran. These aircraft were delivered to 25 ZAP, which trained southern sector units. With increasing numbers of P-39s reaching the USSR, the VVS established 11 ZAP in 1942 to operate alongside 22 ZAP in Ivanovo, whilst 26 ZAP was organised in Azerbaijan in November 1943.

That same year P-39N/Qs also began to arrive in large numbers via the AISib Trace, with six ferrying regiments being formed to fly them from Alaska to training units in central Russia. The Soviets duly received 108 P-39Ds, 40 P-39Ks, 137 (of 140) P-39Ls, 157 P-39Ms, 1113 P-39Ns and either 3291 or 3041 P-39Qs via the southern and AISib Trace routes. Therefore, a total of about 4850 P-39s were sent from US sources, in addition to the original RAF Airacobra Is.

One of the very first Airacobra Is supplied to the USSR, this aircraft was used by 22 ZAP, based near Ivanovo, for training future frontline pilots during early 1942 (via Kulikov)



Once in frontline service, Soviet pilots particularly appreciated the Bell fighter's armament of two heavy and four light machine guns and a nose-mounted cannon. The British-supplied Airacobra Is, as well as the P-39D, were fitted with 20 mm cannon, but from the K-model onwards, the fighter boasted a powerful 37 mm weapon in its place.

Soviet units routinely deleted the British 0.303-in light machine guns from the wings, considering the saving in weight preferable to the extra firepower offered by these weapons. When the P-39Q substituted two gondola mounted 0.50-in weapons for the four wing guns, the gondolas were almost always removed. Indeed, no photographs have yet emerged of Soviet P-39s fitted with underwing gondolas.

VVS pilots were also impressed by the fighter's manoeuvrability and speed, which was good by Soviet standards, at least at the altitudes prevailing on the Eastern Front. As with all other western fighters, the P-39's cockpit was considered to be comfortable by the communists, and they also greatly appreciated its radio and superb canopy glazing.

Initially, the P-39 had a bad reputation for flat spins, but after several losses Soviet pilots learned to cope with this problem. Baling out via the fighter's unique side 'car door' was also to be avoided if possible, as pilots ran the risk of striking the horizontal tailplane. Indeed, numerous pilots, including aces Dmitrii Glinka and Nikolai Iskrin, were badly injured when taking to their parachutes – many others were killed outright. Conversely, the P-39's streamlined shape made it easy to belly land.

Contrary to indomitable Western myth, the Airacobra was not used as a tank killer or specialist ground attack aircraft by the VVS. It was assigned, instead, to air superiority IAPs, although such units, often equipped with several fighter types at any one time, sometimes engaged in ground strafing. The fact is that no armour-piercing round was ever developed for the P-39's 37 mm cannon, and the VVS had large numbers of perfectly good Il-2 *Sturmoviks* for ground strafing in any case.

The first frontline regiment to fly the Airacobra I was 19 GIAP, led by Maj G A Reifshneider (who later changed his name to the more Russian-sounding Kalugin). This unit had started the war as 145 IAP, flying I-16s and MiG-3s from Vaenga in defence of Murmansk. On 7 March 1942 it was elevated to Guards status, and shortly afterwards withdrawn to Afrikanda airfield for re-equipment with Airacobra Is that had been sent to the base in a disassembled form inside railway wagons. Once at Afrikanda, they were put back together by regimental mechanics.

In addition to Airacobra Is, 19 GIAP also received a squadron of Kittyhawks, and once pilots had familiarised themselves with both fighters, the regiment relocated to Shongui. It flew its first combat sorties with the Airacobra I on 15 May 1942 when future ace, and 1st Sqn CO, Capt Kutakhov, led a sweep over German-held territory.

On 22 May 1942 Airacobra I AH692 was wrecked in a forced landing at Shongui by future ace Ivan Bochkov of 19 GIAP. The regiment had only flown its first *Kobra* mission one week earlier (via Kulikov)



Pavel Kutakhov was already an experienced fighter pilot by the time he participated in the Airacobra I's combat debut in VVS service, having first seen action during the invasion of eastern Poland in September 1939 and the Winter War several months later. In the thick of things following the German invasion, he scored his first kill on 23 July 1941 in an I-16, but was unable to add to his tally until he converted to the Airacobra I.

During the course of this first mission on 15 May, Pavel Kutakhov and future ace Snr Lt Ivan Bochkov each downed 'He 113s' – in reality Bf 109Fs. This success was tempered somewhat the very next day when the regiment lost its first Airacobra I. AH660, flown by Ivan Gaidaenko (also subsequently to become an ace), was shot up by a Bf 109F and destroyed in a forced landing. And on 28 May Kutakhov, now a major, was himself shot down while intercepting bombers sent to Shongui.

Having quickly recovered from his brush with death, Kutakhov was involved in a particularly fierce aerial battle on 15 September. Hurricanes of 837 IAP were defending the Tulomi power station from German bombers when Bf 109s were spotted heading in their direction. 19 GIAP was duly instructed to help the Hurricane unit repel the attack, diving on the Messerschmitts from above. In the ensuing dogfight, the Soviets claimed seven German fighters shot down – one of them by Kutakhov – although in fact only a solitary Bf 109 failed to return. The VVS units in turn lost two aircraft, and Kutakhov's fighter suffered 15 hits.

By February 1943 Kutakhov had completed 262 missions and survived 40 aerial combats, downing 7 aircraft individually and sharing 24.

On 27 March, he was leading wingmen Silaev and Lobkovich at treetop level over Lake Domashnee when he spotted four Bf 109Gs and attacked. In his initial pass Kutakhov hit one of the fighters, which fled the battle in a north-westerly direction. He and his wingmen then manoeuvred their Airacobra Is in the vertical plane against the remaining Bf 109Gs, continuing their combat at an altitude of between 600 and 1000 metres. After 15 minutes of gut-wrenching turns, Kutakhov finally succeeded in shooting a second fighter off Lobkovich's tail. He reported that he had hit the enemy with his fire, but then lost sight of the Bf 109G at low altitude. However, a nearby ground observation post reported seeing the fighter crash-land, and they duly captured the pilot.

Awarded the HSU on 1 May 1943, Kutakhov was eventually promoted to colonel and transferred to 20 GIAP as regimental commander 12 months later. By war's end he had completed 367 missions and fought 79 aerial battles, scoring 13 personal and 28 shared kills. Flying various models of P-39 through to VE-Day, Kutakhov remained in the Air Force post-war. In 1969 he was promoted to Marshal of Aviation and Commander-in-Chief of the Air Force, and he remained in this position until his death in 1984.

Capt Zakhar Sorokin of 2 GIAP-SF explains a recent dogfight to another pilot in early 1944. Sorokin had lost both of his legs in combat in October 1941, but by 1943 he was flying again with prosthetics. By the end of the war he had scored 18 victories, including 16 in the P-39 (via Petrov)



Like Kutakhov, Snr Lt Ivan Bochkov, who was Kutakhov's deputy CO, had flown against the Finns in 1939–40. His victory of 15 May 1942 was his first kill, and he followed this up with a second Bf 109F destroyed the following day. On 15 June Bochkov doubled his score by downing a Bf 110 and a Ju 88. Before the year was out he had made captain.

On 10 December Bochkov was leading six Airacobra Is when they encountered a formation of 18 Ju 87s with 12 Bf 109s escorts. He led his formation in a head-on attack against the Stukas, scything down two dive-bombers in the initial pass and scattering the rest. The Soviet pilots then pressed home their attacks in pairs, claiming three more German aircraft shot down without loss before they broke contact. Bochkov claimed one of the Ju 87s in the opening attack, giving him ace status.

By February 1943 he had completed 308 missions and engaged in 45 aerial combats, from which he had scored 7 individual and 32 shared kills.

On 4 April 1943 the ace finally met his match after his wingman was forced to flee for home in a badly damaged P-39 whilst Bochkov covered him by single-handedly battling against five Bf 109Gs. Although his wingman successfully escaped, Bochkov paid the ultimate price when he was eventually shot down and killed. By the time of his death he had flown more than 350 missions and fought in 50 aerial combats. Bochkov was posthumously awarded the HSU on 1 May 1943.

Yet another of 19 GIAP's pilots with experience from the Winter War was Konstantin Fomchenkov. By June 1942 he had been promoted to captain, and on the 15th of that month he scored two victories in an aerial battle over Murmansk. Fomchenkov enjoyed further success over Murmashi airfield on 12 March 1943 when he shot down a Bf 109, but was in turn hit moments later. Despite his wounds, he managed to belly-land his damaged P-39 on the airfield. By then Fomchenkov had flown 320 missions and fought 37 aerial combats, during which he had scored 8 personal and 26 shared victories. He was awarded the HSU on 24 August 1943, and went on to score four more victories. Later that year Fomchenkov was promoted to major and made a squadron commander.

On 24 February 1944 he participated in a low-level attack on the airfield at Tungozero, when six P-39s from his unit and two from 760 IAP escorted six Il-2s of 828 ShAP. As they approached the target, the Soviet formation ran into nine Fw 190s and four Bf 109s returning to the airfield. The Germans attacked, and during the protracted combat which ensued, the fighter regiments lost three P-39s (*text continues on page 58*).

This P-39 was flown by Northern Fleet unit 255 IAP-SF in the summer of 1944 (via G F Petrov)



COLOUR PLATES

1

Hurricane IIB Z5252 of Gen A A Kuznetsov,
Northern Fleet Air Flotilla, Vaenga, September 1941



2

Hurricane IIB BN233 of Maj Boris Safonov, 78 IAP-SF,
Vaenga, early 1942



3

Hurricane IIB BG910 of Maj Viktor Krupskii or Lt Aleksandr
Nikolaenkov, 760 IAP, Boyarskaya airfield, Northern Karelia,
early 1942



4

Hurricane IIB (serial unknown) of Capt Vasilii Adonkin,
78 IAP-SF, Vaenga, early 1943



5

Hurricane IIB BM959 of Lt Ivan Babanin, 609 IAP,
near Tiiksavaari, April 1942



6

Hurricane IIB (serial unknown) of 1 GIAP, Kalinin Front,
spring 1942



7

Hurricane IIB (serial and regiment unknown), Kalinin Front,
early 1942



8

Hurricane IIB (serial unknown) of 22 ZAP, Ivanovo, 1942



9

Hurricane IIA Z2899 of a regiment within 6 PVO Fighter Corps, Moscow Region, 1942



10

Tomahawk II (serial unknown) of Lt Aleksei Khlobystov, 20 GIAP, Murmashi, Northern Karelia, April 1942



11

Kittyhawk I (serial unknown) of Lt Georgii Gromov, 20 GIAP, Murmashi, early 1943



12

Kittyhawk I (serial unknown) of Lt Col Aleksandr Matveyev, Commander of 29 GIAP, Plekhanovo airfield, Leningrad Front, autumn 1942



13

Kittyhawk I (serial unknown) of Capt Pyotr Pokryshev,
29 GIAP, Plekhanovo airfield, Leningrad Front, autumn 1942



14

P-40E (serial unknown) re-engined with Klimov M-105P,
196 IAP, Leningrad Front, spring 1942



15

P-40K (serial unknown) of Nikolai Kuznetsov, 436 IAP,
Lake Seliger, Northwestern Front, December 1942



16

P-40M (serial unknown) of 191 IAP, Leningrad Front,
late 1943



17

P-40M (serial and regiment unknown), Northern Fleet, 1944



18

P-40N (serial unknown) of 2 GIAP-SF, Northern Fleet, 1943



19

Airacobra I (serial unknown) of Maj Aleksandr Zaitsev, 19 GIAP, Shongui, May 1942



20

P-39Q (serial unknown) of Capt Grigorii Dmitriyuk, 19 GIAP, Shongui, autumn 1943



21

P-39Q (serial unknown) of Snr Lt Nikolai Didenko, 2 GIAP-SF,
Vaenga-2 airfield, June 1944



22

P-39Q (serial unknown) of Capt N I Tsisarenko,
102 GIAP-PVO, Leningrad Front, June 1944



23

P-39N (serial unknown) of Maj Sultan Amet Khan,
9 GIAP, Melitopol, September 1943



24

P-39Q-15 44-2844 of Lt Dmitrii Kalinin, 508 IAP,
Turbya airfield, Poland, August 1944



25

P-39N (serial unknown) of Maj Aleksandr Karmin, 129 GIAP,
Jassy, May 1944



26

P-39Q-15 44-2498 of Lt Col Pavel Zavarukhin,
Commander of 72 GIAP, Byelorussia, summer 1944



27

P-39N (serial unknown) of Snr Lt Evgenii Mariinskii,
129 GIAP, Germany, 1945



28

P-39N-0 42-9004 of Col Aleksandr Pokryshkin, 9 GIAD,
Germany, 1945



29

P-39Q-15 44-2547 of Maj Grigorii A Rechkalov, 16 GIAP,
Germany, 1945



30

Spitfire Mk VB EP210 of 57 GIAP, North Caucasus Front,
April 1943



31

Spitfire Mk IXC (serial unknown) of 26 GIAP, Leningrad,
1944



32

Spitfire Mk IXE (serial unknown) of Lt Col Vasilii Matsievich,
26 GIAP, Leningrad, spring 1945



33

Spitfire Mk IXC (serial unknown) of Snr Lt Dmitrii Kalinin,
19 IAP, Vaskovo airfield, near Archangel, 1948



34

P-47D-27 42-27023 of 255 IAP-SF, Northern Fleet, spring 1945



35

P-47D-22 (serial unknown) of 255 IAP-SF, Northern Fleet,
October 1944



36

A-20G-1 (serial unknown) of 27 API-DD, Long Range
Aviation, spring 1944



However, two Bf 109s and five Pw 190s were reportedly destroyed, with one of the latter providing Fomchenkov with his final victory.

Minutes after claiming his kill, the ace was seen to attack another Focke-Wulf head-on, but his P-39 was hit in the process. The fighter turned over on one wing and fell in flames into Lake Tikshaozero. Fomchenkov's final score was 12 individual and 26 shared victories.

Future P-39 ace Lt Efim Krivosheev joined 19 GIAP in May 1942, and he was assigned to Kutakhov's squadron. He scored his first two victories on 15 June 1942, and by September he had completed 96 sorties and 29 aerial combats, claiming 5 individual and 15 shared victories. On 9 September his regiment intercepted a raid by 14 German bombers, escorted by 18 Bf 109Fs. After downing a Messerschmitt, and exhausting his ammunition, Krivosheev saw that Kutakhov was in trouble, so he rammed the enemy fighter and perished in the collision. Krivosheev was posthumously awarded the HSU for this selfless act on 22 February 1943.

One of the tragic heroes of 19 GIAP was Aleksandr Zaitsev, who had seen action in China in 1937 and then against the Finns in 1939-40. By June 1941 he was a captain, and CO of the 3rd Sqn of 145 IAP. Unfortunately, although popular with his pilots, Zaitsev was disliked by his senior officers, and the regiment commissar in particular.

After scoring several victories flying the I-16, Zaitsev was promoted to major in December 1941 and sent to command 760 IAP, which was just forming on Hurricanes. Although the regiment managed to claim 12 victories for the loss of 15 Hurricanes, Zaitsev again found himself in trouble with his commissar, and in April he was relieved of his command.

The commander of the air forces of the 14th Army had ordered him to send two aircraft aloft to patrol over the regiment's airfield, but Zaitsev had instead sortied two pairs of Hurricanes. He was duly reported by the commissar, and in the ensuing argument Zaitsev tried to shoot the latter but missed! He was sent back to his old regiment, now redesignated 19 GIAP and flying the Airacobra I. Zaitsev took part in the first Airacobra sorties along with Pavel Kutakhov, and shot down a Bf 109 on 16 May.

On 27 and 28 May, the regiment escorted a series of bombing raids on German airfields in an attempt to suppress attacks on Allied convoy PQ-16. On the afternoon of the 28th, Zaitsev was leading six Airacobra Is and a similar number of P-40s that were escorting nine SB-2s when, near Lake Shul'gul'-Yavr, he noticed 12 Bf 109s manoeuvring to attack from out of the sun. The bombers ignored Zaitsev's order to return to base as he positioned his fighters to engage the enemy, and in the clash which followed the Soviet escorts claimed three Bf 109s shot down for the loss of two P-40s, an Airacobra I and an SB-2, with another bomber badly damaged. Worst of all, the mission had been repulsed unaccomplished.

Later that afternoon the Soviets tried again, but this time they failed in their objective because of worsening weather.

On 29 May the weather finally cleared, and the Soviets tried once more. This time, Zaitsev left four Airacobra Is and five P-40s to provide close escort for the bombers, while he and his wingman, Lt Gabrinets, flew ahead to attack the German fighters. They duly found seven Bf 109s, which split into two groups prior to diving down to attack them from both sides. Zaitsev managed to fend off the German attacks and gradually manoeuvred the battle toward the frontlines. A pair of Bf 110s then

joined the already uneven battle, and one of them hit the aircraft of the inexperienced Gabrinets. With his fighter badly damaged and already overheating, Gabrinets dived for the ground and escaped eastwards at treetop height. Zaitsev covered his escape and then departed, both pilots eventually managing to return home and make normal landings.

Meanwhile, the bombers had failed to see their four Airacobra I escorts due to excessive cloud cover, spotting only the five P-40s. They decided that their escort was too small and aborted the mission, dropping their bombs on Soviet territory. The leader of the bomber formation was immediately arrested upon his return and sent to appear before a military tribunal. Although Zaitsev would seem blameless in this incident, higher command held him culpable also, and he was publicly reprimanded in front of the regiment just prior to flying his next sortie on 30 May.

Following his dressing down, Zaitsev took off on yet another bomber escort mission. Upon reaching an altitude of 700 metres, the ace's Airacobra I flicked over onto its back and dived into the ground.

Zaitsev had completed 200 missions and scored 14 individual and 21 shared kills by the time of his death. The cause of the crash was never determined. It could have been a mechanical failure, or maybe Zaitsev's flying skills and reactions had been affected by clashes with his seniors and he had made a fatal mistake. Perhaps simply overburdened by troubles, and seeing nothing but a tribunal and disgrace, he decided to take the cleanest exit, thus saving his family from the disgrace which would have followed in the wake of his own condemnation before a tribunal.

NEW P-39 REGIMENTS

The first regiments converted onto the Airacobra I at Ivanovo by 22 ZAP were 153 and 185 IAPs, which arrived at the airfield in late March 1942 after fighting on the Leningrad and Volkhov Fronts. 185 IAP returned to the front on 30 June, and almost nothing is known about its activities save that it was disbanded in August 1942 and its pilots assigned to ferry regiments formed to fly P-39s from Alaska. This lack of information, followed by disbandment, suggests that 185 IAP may have performed badly at the front, suffering serious losses without success.

153 IAP proved more successful, however, the regiment being formed with two squadrons as was common in early 1942. Deployed to Voronezh airfield on 29 June, it flew its first sortie the next day. The unit relocated to Lipetsk shortly afterwards. Its CO was Maj Sergei Mironov, who had seen his first combat against Finland in 1939-40 when he flew 37 sorties and claimed a victory, for which he was awarded the HSU.

Under Mironov's leadership, 153 IAP flew 1070 sorties in just 59 days on the Voronezh Front. During this period the unit claimed 64 victories for the loss of eight aircraft and three pilots in combat. In August eight aircraft (led by Maj Oleg Rodionov) from the regiment had operated independently on the Western front, flying an additional 167 sorties and claiming 12 kills for the loss of two aircraft and two pilots wounded.

On 1 October 153 IAP was transferred back to 22 ZAP in order to make good its losses and reform as a three squadron organisation. At this time Maj Mironov was promoted to lieutenant colonel and given an assignment to the Main Administration for Combat Training, leaving Maj Rodionov to take command of the regiment.



Previously misidentified as 32-kill ace Snr Lt Pavel Golovachyov of 9 GIAP, this pilot is in fact Maj Nikolai Proshenkov of 69 GIAP – the only known member of the regiment to win the HSU. He flew 375 missions and scored 19 individual and 4 shared victories in the air. He also destroyed 14 enemy aircraft on the ground. 69 GIAP re-equipped with P-39s in May 1943 and returned to the Steppe Front three months later (via G F Petrov)

Maj Aleksei Smirnov was 28 GIAP's most successful ace, claiming 34 and 1 shared kills during 457 missions. He also received the HSU twice



In February 1944 Col Mironov was made CO of 193 IAD, and by war's end he had completed 400 sorties and scored 17 victories in addition to his single Winter War kill.

153 IAP's re-equipment was cut short by the worsening situation on the North-western Front. Thrown back into action, the regiment flew 94 sorties and claimed four BF 109s and two Ju 87s destroyed for the loss of two Airacobra Is in the nine days of flying in November that were not weather-affected.

On 21 November the regiment was redesignated 28 GIAP, and from 1 December 1942 through to 1 August 1943 it flew a further 1176

sorties with the Airacobra I. The unit's pilots downed 63 aircraft (plus 4 balloons) and damaged 7 more, in exchange for 14 aircraft lost in combat, 5 bombed on the ground and 4 written off in accidents, as well as ten pilots killed. In August the regiment re-equipped with P-39N/Qs.

The most famous 28 GIAP pilot of them all was Maj Aleksei Smirnov, who flew a number of missions over Finland in 1939. He scored his first victory in July 1941, and already had four victories with the I-153 to his credit by the time the regiment converted to the Airacobra I. With the new fighter Smirnov began to rapidly increase his score.

On one of his early missions, on 23 July 1942, he downed two fighters before his own machine was set on fire. Flying the flaming Airacobra I eastwards, Smirnov baled out between the German and Soviet armies, but was lucky enough to be rescued by a platoon of communist tanks – he spent three days with the tank brigade before returning to his regiment.

Smirnov's next double kill mission came on 15 March 1943, when he downed two Fw 190s. By August he had flown 312 missions and destroyed 15 aircraft in 39 combats. Awarded the HSU on 28 September 1943, Smirnov celebrated 11 days later with four kills in a single day.

The ace completed his 396th mission in September 1944, by which point he had scored 31 individual and 1 shared kills. Smirnov received his second HSU on 23 February 1945, having become the deputy CO of the regiment the previous month. By war's end he had flown 457 missions and scored 34 personal and 1 shared victories.

Aleksei Nikitin was another pilot with Winter War experience who flew with 153 IAP from June 1941, and by the end of that year he had already claimed nine individual and five shared victories. Although very little is known about his career, Nikitin received the HSU on 10 February 1943, and by war's end he had completed 238 sorties and fought 73 aerial combats. He scored 19 individual and 5 shared victories.

Fellow 153 IAP ace Anatolii Kislyakov completed flying school too late to see combat in the Winter War, but he was in the thick of the action from June 1941, scoring his first victory on the 25th of that month when he shot down a Finnish Fokker D.XXI over Lake Sortevala. Kislyakov

specialised in strafing enemy airfields, and he destroyed 15 aircraft on the ground during such attacks, but was hit by flak four times and shot down twice by fighters.

He later became the regiment's deputy CO when it deployed to reinforce the Stalingrad Front, and whilst flying over the embattled city he scored six kills in the Airacobra I, followed by seven more when 153 IAP deployed to Demyansk. By war's end Kislyakov had been promoted to captain, having flown 532



sorties and downed 15 aircraft and 1 balloon – he had also destroyed 15 aircraft on the ground. He was awarded the HSU on 18 August 1945.

The third unit to cycle through Airacobra I conversion at 22 ZAP was 180 IAP, which arrived at Ivanovo in a depleted state on 20 July 1942 after having been sent to the front with Hurricanes just five weeks earlier. The regiment began its conversion on 3 August, and the process seems to have taken some time as it was held further in reserve before finally being returned to the Central Front, near Kursk, on 13 March 1943.

Whilst undergoing its re-equipment, the unit was redesignated 30 GIAP on 21 November 1942 in recognition of its earlier battles.

When the regiment returned to the action in March 1943, it was assigned to 16 Air Army on the Central Front, based near Kursk. 30 GIAP was primarily staffed by new personnel, including its CO, Lt Col Khasan Ibatullin. He had previously scored several victories flying I-153s and I-16s prior to being shot down and wounded in July 1942. Ibatullin led 30 GIAP for the rest of the war, scoring his last two victories on 18 April 1945 to bring his tally to 15 individual kills from 456 sorties.

The real stars of the regiment were Mikhail Petrovich Rents and Aleksandr Petrovich Filatov. Rents had completed flying school at Odessa in 1939 and then been sent to the Far East, where he served as an instructor until posted to 180 IAP in October 1942. Despite having no combat experience, his vast number of flying hours gave him a distinct advantage over newer pilots, and he was made a flight commander.

Rents scored his first kill on 22 May 1943, when he led a flight of four P-39s against a large formation of Ju 87s, escorted by Fw 190s. In the first attack he downed a fighter, while the leader of the second pair got a bomber – three more Ju 87s were destroyed before the Germans fled. Five days later Rents was attacked by three Fw 190s, which forced him to bale out of his spinning P-39. He did not score many personal successes during the rest of the year, and had just three individual kills by 1944.

In late 1943 30 GIAP again returned to the rear for replenishment, after which it was assigned to 273 IAD. The allocation of a Guards unit to a regular division suggests that the regiment's performance may not have been up to the standards expected of the Guards. However, Mikhail Rents seems to have fulfilled his duties acceptably, even if he had scored only rarely, and since he had led his flight effectively, he was promoted to command the 3rd Sqn.

Lt Fyodor Shikunov should have received the HSU, as he claimed 25 individual victories, but his career was blighted by political problems. Having flown with 9 GIAP during 1943, he later transferred to 69 GIAP (via G F Petrov)



During the summer of 1944 Rents at last began to achieve more personal successes whilst flying in support of Operation *Bagration* (the battle for Byelorussia and Poland). For example, on 12 August, while providing air cover for the ground forces, his group shot down six Ju 87s from a force of 30, Rents personally claiming two of them. By the end of 1944 his squadron had earned a reputation for being the best not only in his regiment, but in the whole division, having flown 1183 sorties and scored 58 victories under his command. By year-end Rents was a major.

During the first four days of the Berlin operation, Rents' squadron flew 112 sorties and scored 15 victories. By the end of April he had flown 246 missions, and in 56 aerial combats scored 18 individual (2 Bf 109s, 12 Fw 190s, 1 Ju 88 and 3 Ju 87s) and 5 shared victories. Nine of these kills came in April 1945 alone, including three Fw 190s shot down on the 17th, two more on the 18th and a further pair on the 20th. More action followed in early May, and Rents finished the war having flown a total of 261 sorties and survived 63 aerial combats, with 20 individual and 5 shared kills to his credit. He was awarded the HSU on 15 May 1946.

The other leading pilot of 30 GIAP was Aleksandr Petrovich Filatov, who arrived at the front as a sergeant pilot in March 1943 and flew in Mikhail Rents' 3rd Sqn. He scored his first victory on 9 May when he destroyed an Fw 190, and then on 2 June downed a Bf 110 over Kursk. Filatov was quiet, modest and a lover of literature, especially poetry. After his first victory, when he returned to his base, he remained seated in the cockpit of his P-39 recovering his self-control, before getting out of the aeroplane and calmly announcing his success as if it hardly mattered. He seems to have been even more talented than his commander.

Pilots of 30 GIAP pose in front of Capt Aleksandr Filatov's P-39Q-5 in Poland in 1944. Filatov is seated in the front row at the far left, Maj Rents is seated third from the left and Col Ibatullin is seated immediately to Rents' left (via Kulikov)

Within three months Filatov had scored eight individual and four shared victories, including three kills in one mission on 4 July – the first day of the Battle of Kursk. He was shot down on this sortie, however, being forced to bale out. Fortunately for him, the wind carried his parachute back over Soviet lines, and the next morning he rejoined the regiment. Six days later Filatov was again downed by Fw 190s, but this time he landed on the German side of the lines. Knocked unconscious when he hit the ground, he was soon captured. However, on 15 August he and a Soviet tank crewman escaped when their column was strafed. For over a month Filatov evaded recapture, before returning to his unit.

Of course this was a very serious matter, for even the briefest captivity was considered treason under Soviet military regulations. However, Filatov passed the SMERSh (Soviet counterintelligence department) investigation, and 30 GIAP's CO, Col Khasan Ibatullin, returned him to combat duty after considering his case.

During the summer of 1944 Filatov was promoted to senior lieutenant, and he became deputy CO of Mikhail Rents' 3rd Sqn. The final months of 1944 and early 1945 proved a quiet time for 30 GIAP, as the Germans husbanded their dwindling resources and seldom challenged the Soviets. In March Filatov was appointed commander of the 1st Sqn, and with the start of the final drive toward Berlin just weeks later, the Germans threw all their remaining resources into the last battle. Filatov scored a further eight victories in the final weeks of the war, including two on 19 April.

The following day, however, during an evening patrol, the ace was again shot down. With his P-39 in flames, Filatov had to make a belly landing in German-controlled territory. As he sprang from the cockpit and tried to dash for a nearby wood, he was shot in the leg by a burst of machine gun fire and captured for a second time. Taken to a German hospital, Filatov escaped at the first opportunity and returned to his regiment. He was again cleared of blame, and had the full support of his commanders. Filatov was even promoted to captain, but being captured twice was a guarantee that he would not get the HSU, or have a career in the air force post-war. Indeed, he left the service in 1946. Filatov flew 175 missions, fought 35 combats and scored 21 individual and 4 shared kills.

Another hard luck pilot to serve with 30 GIAP was Innokentii Kuznetsov, who had flown Soviet fighters with 129 IAP, and scored several kills, before being transferred to 180 IAP in August 1942. He continued to fly Soviet aircraft and then Hurricanes until early 1943, by which point 129 IAP had become 30 GIAP, and re-equipped with P-39s.

On 3 March 1943, during Kuznetsov's first flight over the lines in a *Kobra* (as the P-39 was dubbed by its pilots), the future ace spotted a large formation of unfamiliar blunt-nosed German fighters with a performance superior to that of his own machine. He attacked the aircraft and shot one of them down, but his own wingman vanished during the course of the engagement and Kuznetsov found himself fighting for his life against five Fw 190s. Unable to escape, and with his own aircraft damaged and on fire, he rammed one of his foes and bailed out. Suffering a wound to his leg, Kuznetsov came down near the frontline and barely avoided capture prior to being rescued by Soviet ground forces.

Twice during 1943 he was nominated for the HSU, but the first time the paperwork recommending the award vanished without a trace and the

second time it was disapproved. Kuznetsov received a lesser medal instead, along with promotion to the rank of captain. In 1944 a third nomination was also rejected – evidently, Kuznetsov had a 'politically chequered' past, having fallen foul of the same regimental commissar who had given fellow ace Sergei Dolgushin such a hard time. Like the latter, Kuznetsov was independent-minded and quick-tempered. However, on account of several victories flying the Hurricane, Kuznetsov was awarded the Order of the British Empire! He was also appointed deputy regiment commander in October 1943 and promoted to major on 1 March 1944.

During April 1945, whilst flying over Germany, Kuznetsov once again found himself in a dangerous situation when, as the leader of four P-39s, he attacked 12 Fw 190s. Shooting down his German equivalent, the ace, and his wingman, were then set upon by the remaining 11 Focke-Wulf fighters. Coming to the aid of his wingman, Kuznetsov rammed a fighter, but this time he was able to nurse his damaged *Kobra* over the frontline and set it down in a belly landing in Soviet-held territory.

By the end of the war Kuznetsov had completed 366 missions, of which 209 were flown in MiG-3s, 37 in Hurricanes and 120 in *Kobras*. He was officially credited with 15 individual and 12 shared victories, including two Fw 190s destroyed by ramming. However, Kuznetsov actually scored additional victories which could not be confirmed due to aircraft falling in German-held territory. Years later, in 1956, he was an advisor in Egypt when the Suez Crisis (Sinai War) broke out, and he flew one bombing mission in an Egyptian Il-28. Finally, in April 1990, the HSU nomination forms submitted on 4 April 1943 were found and approved, and Kuznetsov belatedly received the award on 22 March 1991!

With the northern convoys to Murmansk proving too costly in terms of men and materiel lost in the early months of 1942, from the summer of that year lend-lease fighters began being sent along the southern route through Iran, which was longer but safer. Hurricanes, Kittyhawks and Bostons began arriving in June 1942, and the first P-39Ds in September. Shipped to Abadan, they were then ferried to 25 ZAP in Azerbaijan.

The first three units trained by the regiment were combined within 9 GIAD, which was acknowledged as the VVS's most formidable division. Indeed, it scored 1147 victories and produced 31 HSU pilots, with three of the latter being made heroes twice and one three times.

298 IAP was the first regiment to receive the P-39D, followed closely by 45 IAP and 16 GIAP. The former had flown a mixed force of Polikarpov fighters and Yak-1s on the Southern Front from the start of the war until withdrawn in January 1943 to reform with replacement pilots and new aircraft. It also gained a third squadron at this time. 298 IAP received 21 P-39D-2s (with 20 mm cannon) and 11 P-39K-1s (with 37 mm cannon) as part of the re-equipment, the K-models being assigned to the regiment CO, navigator, the deputy CO, the three squadron COs and the regiment and squadron deputy COs for Political Affairs. The flight commanders and line pilots received P-39Ds.

On 17 March, under the command of Lt Col Ivan Taranenko, 298 IAP deployed to Korenovskaya airfield, where it was assigned to 219 BAD (Bomber Aviation Division) to escort its Pe-2s. The regiment flew its first sortie almost immediately upon arrival, and suffered its first loss on 19 March when Sgt Belyakov was shot down and killed.



P-39 ace Maj Vladimir Semenishin briefly led 298 IAP during the summer of 1943 until he was killed in action (via Kulikov)

Snr Lt Vasilii Drygin (standing in the centre of the photograph) of 298 IAP is seen here receiving the congratulations of his comrades upon the announcement in a frontline newspaper of his receipt of the HSU, which he is not yet wearing. This would mean that the photograph was taken around 24 May 1943 (via Kulikov)



Between 17 March and 20 August 1943, 298 IAP participated in some of the bloodiest aerial battles of World War 2 against the fighters and bombers of 8 *Fliegerkorps* above the Kuban and the Blue Line. During those five months, the regiment flew 1625 sorties and fought 111 aerial combats, its pilots downing 167 aircraft and damaging a further 29. Its own losses amounted to 30 aircraft destroyed and 11 damaged enough to need major repairs. As a reward for its performance, 298 IAP was redesignated 104 GIAP on 24 August 1943 and reassigned to 9 GIAD, which was being organised around 16 GIAP as an elite division.

The regiment's CO, Lt Col Ivan Taranenko, scored four individual and four shared kills during this period, and in mid July he was promoted to colonel and made commander of Yak-equipped 294 IAD. Awarded the HSU on 2 September 1943 for his leadership of 298 IAP, by war's end Taranenko had increased his tally to 16 individual and 4 shared victories.

Taranenko's successor at 298 IAP was Maj Vladimir Semenishin, who had first seen combat over Finland in 1939 and then fought with I-16-equipped 131 IAP from June 1941. On 11 May 1942 he had suffered 18 separate wounds when hit by flak whilst flying over the Kuban. Barely making it back to base, Semenishin eventually returned to duty and was assigned to 298 IAP as regimental navigator with the rank of major.

By May 1943 he had flown 136 missions and survived 29 combats, scoring eight individual and seven shared victories. Awarded the HSU on the 24 May, Semenishin scored four kills in two sorties three days later. On 18 July he became CO of 298 IAP, and he proved to be a popular leader who was known for being both a tactician and a trainer of his men.

On 29 September 1943, he was leading a mission of nine P-39s when six of the aircraft became separated from him and his wingmen in bad weather. Semenishin and his two companions continued on, but they were bounced by nine Bf 109s and one of the *Kobras* downed before they even knew they were coming under attack. Semenishin immediately counter-attacked, and destroyed three fighters prior to being killed. His final score was 23 individual and 13 shared victories from 300 missions.

Among the seasoned members of 298 IAP was Vasilii Drygin, who had joined the regiment in June 1942 from 4 IAP. Surviving many bloody battles, he transitioned to the P-39 with the regiment's few remaining original pilots and then returned to the action in 1943. Drygin was particularly prolific during the fighting over the Blue Line, scoring ten individual and five shared kills.

Two of these victories were claimed on 2 May whilst flying as part of a foursome with Maj Semenishin. Encountering a dozen Ju 87s, with escorts, Drygin and his wingman went after the dive-bombers, despatching two and one respectively. Then, having disrupted their attack, he rushed to the aid of Semenishin, who was holding off the fighters. In the resulting melee, Drygin baled out of his blazing P-39, although he was back in the air again the next day, helping

Semenishin and another pilot force an undamaged Bf 109 to land at their airfield.

Drygin was awarded the HSU on 24 May 1943, by which time he had completed 261 missions and survived 40 aerial engagements. Although he had downed 12 aircraft individually and shared in the destruction of five others, Drygin was far from finished, and on 7 June he destroyed three Bf 109s in a day. By war's end his score had risen to 20.

The second regiment to convert to the P-39D was 45 IAP, which fought in the Crimea and northern Caucasus from early 1942 under the leadership of Lt Col Ibragim Magometovich Dzusov – although barely an ace himself, he was one of the VVS's outstanding leaders of aces.

Born an Ossetian (one of the Muslim minority peoples of the Caucasus) in 1905, he was already a Red Army soldier prior to his 15th birthday, fighting the anti-Communist Basmachi in Soviet Central Asia. In 1929 Dzusov completed flying school and committed himself to a career in the VVS. When he led 45 IAP to the front in January 1942 he was already 37 years old, and trying to survive in an era when fighter combat was very much a young man's game. Dzusov was both liked and respected by his pilots, and he knew how to organise and lead.

On 16 June 1943 he left 45 IAP to take command of 9 GIAD, where he remained until May 1944, when he was appointed overall commander of 6 IAK. In spite of his command responsibilities, and his age, Maj-Gen Dzusov flew 89 missions and scored six kills in 11 combats, although it is uncertain how many of these may have been scored in the *Kobras*.

Although 45 IAP had arrived at 25 ZAP in late October 1942 – a full two-and-a-half months before 298 IAP – its conversion was more complicated, and the units ended up going into action within days of each other. 45 IAP initially converted onto the P-40, spending time practising combat flying and training pilots newly arrived from flying school.

Just as the unit was on the verge of returning to the frontline with its P-40s, the first *Kobras* arrived. The decision was quickly made to reorganise the regiment into three squadrons, which were staffed by 31 pilots in total, and issue them with sufficient aircraft to equip two units with P-39s and one with P-40s. This took still more time to achieve, and it was not until early March 1943 that 45 IAP was ready to join 216 SAD at the front. When they departed, the 1st and 3rd Sqns had ten P-39Ds and eleven P-39Ks respectively, whilst the 2nd Sqn had ten P-40Es.

On 9 March 45 IAP deployed to the airfield at Krasnodar, and it immediately entered battle, losing its first P-39D (41-38433) the following day. Twenty-four hours later two more *Kobras* were damaged seriously enough to need repairs. Thus, although 45 IAP had been the second regiment to receive the P-39 in the North Caucasus, and had spent longer in training, it was still the first to take it into combat.

22 March saw eight *Kobras* of 45 IAP fight a difficult battle against a formation of 30 Bf 109Gs, and although the Soviets claimed 13 Messerschmitts destroyed, they suffered the loss of three aircraft. Sgt N Kudryashov and Sqr Lt Ivan Shmatko died executing *taran* ramming attacks in their burning P-39s, the latter pilot having previously scored eight victories flying Yaks with the regiment during the summer of 1942. In another battle that same day, future P-39 ace Boris Glinka was wounded by the gunner in a Ju 87, although he soon returned to action.

Boris Borisovich Glinka and his brother Dmitrii Borisovich both served in 45 IAP/100 GIAP, and both became leading Soviet aces. Boris was the older, and had finished his flying training in 1940. Serving as a lieutenant with 45 IAP when war broke out, he saw much action but did not manage to score any victories in 1942 – indeed, only when he was issued with a *Kobra* did he realise his full potential as a fighter pilot. Awarded the HSU on 24 May 1943 after claiming ten kills in March and April, Boris would eventually achieve 30 victories. In the summer of 1944 he was transferred to 16 GIAP as its new commander.

Despite being three years younger than Boris, Dmitrii Glinka joined the Army first and duly completed his flying training ahead of his older brother. He was also assigned to 45 IAP, but as a senior lieutenant and deputy commander for aerial gunnery. Dmitrii claimed six kills flying Yak-1s in the spring of 1942, although he was eventually shot down and wounded, spending two months in hospital. By the middle of April 1943 he had completed his 146th sortie and scored his 15th victory.

On 15 April 45 IAP experienced one of its worst days when it had four pilots shot down – Dmitrii was one of them, although he had destroyed two Ju 88s prior to his demise. Wounded once again, and forced to take to his parachute, he spent a week in hospital recuperating, and then returned to action with his arm still in a splint. Within hours of Glinka rejoining his regiment, two more P-39s (flown by Sqr Lt Petrov and Sgt Bezhahnov) were shot down, one of them falling to future ranking German ace Erich Hartmann for his seventh kill. That same day Glinka received the HSU for his first 15 victories.

On 30 April Dmitrii destroyed three Ju 87s in a single sortie. Then, on 4 May, during an attack on Sarabuz airfield that had seen him destroy a Bf 109 on the ground, he spotted an unlucky Ju 52/3m that had arrived over the base just as it was being strafed. Dmitrii shot it down too. In the early summer (at about the same time as 45 IAP became 100 GIAP) Dmitrii Glinka was promoted to captain, and on 24 August he became a two-time HSU winner for completing 186 sorties and scoring 29 kills.

In September Glinka had another close call, although this incident could have been totally avoided. He was examining a captured German hand grenade when it exploded, and fortunately for him it only caused minor wounds to his legs. Within days he was back in the air, and had

scored eight more kills by the beginning of December when 9 GIAD was withdrawn for a rest. Dmitrii returned to the front in May 1944, taking part in the Jassy-Kishinev operation. During the first week of the campaign he shot down another six aircraft, including three Ju 87s in a single mission at the beginning of the month. He then had yet another close escape, although this time it was not his fault.

Dmitrii was a passenger in an Li-2 transport which became lost in bad weather and crashed into a

P-39s of 100 GIAP await the order to take off in support of ground forces on the 1 Ukrainian Front on 2 February 1944. 'White 13' (42-4480) is the P-39L that was routinely flown during this period by leading ace Dmitrii Glinka (via Kulikov)



mountain. Seriously injured, the ace lay in the wreckage for 48 hours before being rescued, and he was subsequently off operations for a full two months. Promoted to major upon his return, Glinka participated in the Lvov-Sandomir operation, during which time he added nine more kills to his score. He then fought in the Berlin offensive, scoring three victories in a day, before claiming his final kill on 18 April 1945 when he downed a Fw 190 in an engagement fought at a height of just 30 metres. Glinka's tally of 50 kills came during the course of 300 sorties and 90 combats.

Another 100 GIAP pilot to distinguish himself over the Kuban was former chemistry and mathematics teacher Ivan Babak. He had joined the Army in 1940, and was still undergoing training when the Germans invaded. Rushed through the remainder of his course, and graduating in April 1942, Babak was immediately sent off to Yak-1-equipped 45 IAP. He initially failed to impress his regiment commander, Lt Col Dzusov, who was ready to send him away, but ace D L Kalarash took him under his wing and helped him adjust to frontline flying. With his rehabilitation completed, Babak was asked by Dmitrii Glinka to fly as his wingman.

He scored his first victory over Mozdok in September, and when 45 IAP returned to the front in March, Babak added more kills to his tally by downing a Bf 109 and a Ju 87. In April 1943 he was credited with 14 fighters destroyed over the Kuban. This success singled Babak out as one of the leading *Kobra* aces, the peer of Fadeev, Pokryshin and his mentor, Dmitrii Glinka. However, just as he was reaching the peak of his success, Babak contracted malaria, which put him in hospital until September.

Upon his return to 100 GIAP Babak was given a new P-39N, and on his first sortie with the aircraft he shot another Bf 109 down. Awarded the HSU on 1 November 1943, he was soon back in the hospital, however, following a recurrence of his malaria. Kept out of action until August 1944, Babak returned to his unit (as 100 GIAP's deputy commander for aerial weaponry) on the eve of the Jassy-Kishinev operation.

Proving that his ability as a fighter pilot was undiminished by his bouts of illness, Babak destroyed four Fw 190s in a single mission on 16 July whilst flying in support of the Lvov-Sandomir operation. He was posted to 16 GIAP as regimental commander in March 1945 and his war-weary P-39N was passed on to fellow ace Grigoriï Dol'nikov.

Unfortunately for Babak, on 22 April he was shot down by flak and captured. Although he was a prisoner for only two weeks, this was enough to besmirch a promising career. Symbolically, his capture was made even worse by the fact that it had happened on Lenin's birthday. This misfortune cost him a second HSU, and except for Pokryshkin's support, it could have cost Babak far more. By the time of his capture he had flown 330 missions and scored a total of 33 individual and 4 group victories.

Another veteran ace from 45 IAP was Nikolai Lavitskii, who had joined the regiment in 1941 and downed his first kill flying an I-153. By the time 45 IAP withdrew to re-equip with the P-39, he had flown 186 sorties and scored 11 individual and 1 shared victories. During the summer of 1943 Lavitskii scored four more kills, and on 24 August he was awarded the HSU, promoted to captain and made CO of the 3rd Sqn.

Despite his success as a fighter pilot, Lavitskii's personal life was in turmoil, and his wife divorced him whilst he was at the front. From then on he volunteered for every mission, particularly the most hazardous

ones. His bravery turned into recklessness, seriously worrying his friends, who felt he had a death wish. Lavitskii continued on his path to self-destruction, despite I M Dzusov becoming CO of 9 GIAD and moving him to division headquarters as deputy division commander for air gunnery. The ace finally found the death he had sought for so long during a training flight on 10 March 1944, by which time he had flown 250+ sorties and been credited with 24 individual and 2 shared kills.

16 GIAP

The third regiment to take the P-39D into action over the Blue Line was not only the most famous of all *Kobra* units, but possibly the most renowned regiment in the history of Russian air power – 16 GIAP. The second highest scoring (697 kills) IAP in the Soviet Air Force, it also had the largest number of heroes (15 HSUs), including two pilots who received the award twice and one of only two to be awarded it three times. Indeed, only three individuals won it three times in the entire armed forces – Marshal G K Zhukov received his third HSU in 1945, and a unique fourth in 1956.

Designated 55 IAP when war broke out, the unit (led by Maj V P Ivanov) was then in the process of converting from I-153s and I-16s to the MiG-3 at Beltsy, on the Romanian border. Amongst its crop of pilots was Snr Lt Aleksandr Pokryshkin, who got off to a bad start on day one of the invasion when he shot down an Su-2 bomber which he had failed to recognise as Soviet – he was able to score his first legitimate victory 24 hours later. 55 IAP flew mainly reconnaissance and ground attack missions in 1941, and it was redesignated 16 GIAP on 7 March 1942.

By the end of the year Pokryshkin had completed 316 sorties, scored four victories and been shot down by flak once during a reconnaissance mission – he landed behind German lines but evaded capture. This did not seem a good harbinger of his future success, although the best evidence of Pokryshkin's skill may have been his very survival. During this dark period he began laying the groundwork for his later successes, and also the success of the Soviet Air Force – he spent much time studying his regiment's air encounters, and analysing its tactics.

Like other Soviet aces who were doing the same thing, and coming independently to similar conclusions, Pokryshkin decided that both the Air Force's equipment and tactics were inferior to the enemy's. He soon found himself in trouble for criticising Soviet fighter designs, and his outspoken views may have also been the source of the difficulties which developed between him and the regimental navigator.

During the spring of 1942 16 GIAP was able to dispense with the last of its I-153s and I-16s when further Yak-1s were received, although the regiment was still stuck with the obsolete MiG-3. Now flying the Yakovlev fighter, Pokryshkin began

A group of leading P-39 aces from 6 IAK walk purposefully down the flightline in front of their favoured mount. These men are, from left to right, Konstantin Vishnevetskii (104 GIAP), Nikolai Lavitskii (16 GIAP), Aleksandr Pokryshkin (9 GIAD), Dmitrii Glinka (100 GIAP), Gen Maj I M Dzusov (6 IAK commander), Grigori Rechkalov (16 GIAP) and Ivan Babak (100 GIAP)



to increase his score, and by the end of 1942 his tally stood at 12 kills (including eight Bf 109s) from 354 sorties.

In early January 1943 16 GIAP was sent to 25 ZAP for an infusion of new pilots and re-equipment with the P-39, both of which allowed it to form a larger three-squadron regiment – the unit received 14 P-39L-1s, 7 P-39K-1s and 11 P-39D-2s. On 8 April 16 GIAP returned to the front at Krasnodar, assigned to 216 SAD, and began operations the next day.

During April the regiment flew 289 sorties with the P-39 and 13 with the P-40E, and was credited with 79 victories – 14 Bf 109Es, 12 Bf 109Fs, 45 Bf 109Gs, 2 Fw 190As, 4 Ju 88As, 1 Do 217 and 1 Ju 87D (these aircraft types were identified by reading engine number plates or other data whilst inspecting the remains of downed aircraft).

In return, 16 GIAP lost 19 P-39s in combat and two in accidents, along with 11 pilots, and it received 19 P-39s and four P-40Es as replacements. By 1 June its strength had again been reduced to 19 P-39s, the unit's overall loss of 36 fighters being evidence of the fierceness of the battles.

April 1943 had seen Pokryshkin credited with ten Bf 109s destroyed, whilst the regiment's other great ace, Grigoriï Rechkalov, downed seven Messerschmitt fighters and a Ju 88. Outscoring them both, however, was Vadim Fadeev, who claimed 12 Bf 109s destroyed.

On Pokryshkin's first combat mission in the P-39, on 9 April, he and Rechkalov were both credited with Bf 109s shot down. Three days later Pokryshkin scored a double and Rechkalov enjoyed success again too – the former had actually claimed seven kills on 12 April, but he was only able to gain confirmation for two of them. He was credited with further victories on the 15th, 16th and 20th, and on the 29th he succeeded in shooting down four Bf 109s in a single sortie.

Pokryshkin was awarded the HSU on 24 April, and exchanged his old P-39D-2 'White 13' for a new N-model (the famous 'White 100'), which he flew for the rest of the war. He was promoted to major the following month, having been CO of his unit since early 1943.

And just as things were going well for the ace, his career was almost terminated by the regiment's commander (and former navigator), Zaev. Relations between the two had deteriorated throughout 1942, and in mid 1943 he took measures to have Pokryshkin expelled from the regiment, stripped of his HSU and hauled before a tribunal. After some considerable difficulty, 16 GIAP's kommissar was able to clear Pokryshkin's name and reputation, and he was awarded his second HSU on 24 August for completing 455 sorties and scoring 30 individual kills.

Undeterred by Zaev's political machinations, Pokryshkin had been busy developing and perfecting his new tactics during the spring and summer of 1943. The old pre-war tactic of flying in formations of threes and sixes, either in line abreast or in a 'V', and then rigidly maintaining formation throughout any aerial battle which ensued, had proven obsolete. Seeing the effectiveness of the enemy's open formations, Pokryshkin reduced the size of his flights to four fighters, which he split into elements of two. However, he still made sure that the wingman was briefed on the importance of maintaining formation with his leader.

During the summer Pokryshkin introduced the 'Kuban Stairs' tactic, in which the strike flight flying at a lower altitude would be covered by another flight behind it, and at a higher altitude, ready to surprise any



The Father of Soviet fighter aviation, Aleksandr Pokryshkin poses with his various decorations in this official portrait, taken soon after VE-Day

enemy fighters that might try to bounce it. And this second flight would in turn be covered by its own flight higher still.

Pokryshkin also came to prefer the diving attack (again a favourite of the Luftwaffe) instead of the classic turning battle or head-on assault. This called for a surprise attack to be made from higher altitude, diving at high speed. Once close to the enemy, the pilot would open fire and then dive away. Using the momentum of the dive, he would zoom climb back up to a higher altitude and repeat the attack if necessary. Pokryshkin summed this tactic up in his own famous shorthand, 'vysota-skorost-manevr-ogon' ('height-speed-manoeuve-fire').

His tactics came to be generally adopted by the Soviet Air Force, and the 'Kuban Stairs' still proved successful for the Soviet-trained North Vietnamese Peoples' Air Force during the Vietnam War. Pokryshkin also developed the practice of 'free hunting', in which 16 GIAP pilots were allowed to execute fighter sweeps, looking for combat rather than being tasked with close bomber escort or air cover duties typical of Red Air Force fighter missions until then. This in turn gave pilots the chance to struggle for an initiative previously denied them by their own tactics.

In late 1943 Pokryshkin attended an 8th Air Army-sponsored conference concerned with the wider development and use of free hunting, and this tactic gradually became popular throughout much of the Soviet Air Force. Several elite IAPs were tasked mainly with free hunting, whilst most IADs and IAKs established 'Sword Flights' composed of their best pilots, freed of routine assignments and given hunting duties.

For Pokryshkin, one negative feature of the new tactic was that he was no longer able to get confirmation for all of his victories – he claimed 13 kills which could not be confirmed or included in his score.

After clearing the Kuban, Pokryshkin's air division led the way in the battle to liberate southern Ukraine, his pilots particularly distinguishing themselves in the September battle for the Donbas region and the liberation of Mariupol. At the end of 1943 16 GIAP and 9 GIAD were withdrawn into reserve for a period of rest and reconstitution.

The great rival to 'Sasha' Pokryshkin, the top-scoring Airacobra pilot and the third-ranking allied ace was Grigoriï 'Grisha' Rechkalov, whom doctors repeatedly forbade to fly! After joining the military and completing his training, Rechkalov was excluded from flying by a medical

board because of his colour blindness and farsightedness. However, with the approach of war in 1941, such vision questions suddenly seemed less important, and in June he found himself flying I-153s and I-16s on the South-western Front. Rechkalov scored two kills, but was also shot down and forced to endure three operations and several months in hospital, after which doctors again forbade him from flying.

Numerous appeals, severe Soviet losses and some flying demonstrations by Rechkalov himself eventually

Ranking P-39 ace Grigoriï Rechkalov poses with his two HSUs in either July or August 1944. The pilot standing on the wing of the ace's *Kobra* also wears a single HSU, but he remains unidentified (via Kulikov)



saw him return to the front in the summer of 1942 when he was assigned to 16 GIAP. He scored a few more victories with the Yak-1, but only truly found his mark in April 1943 after the regiment had re-equipped with the P-39. Along with Pokryshkin, he shot down a Bf 109 during 16 GIAP's first *Kobra* sortie on 9 April, and by month-end he had scored eight victories and been promoted to senior lieutenant.

On 24 May Rechkalov received the HSU for 194 sorties and 12 individual and 2 shared kills, and in June he became commander of 16 GIAP's 1st Sqn. Claiming two Ju 52/3ms and a Romanian Savoia Z.501 flying-boat over the Black Sea during the autumn of 1943, Rechkalov continued his scoring run into 1944.

Sharing the limelight at 16 GIAP in 1943 with the likes of Rechkalov and Pokryshkin was Vadim Fadeev, who at the time challenged, and even exceeded, the accomplishments of his fellow aces. He was known across the front as Boroda ('The Beard'), a nickname he himself used on the radio – the source of this sobriquet was his long, uncut chin whiskers.

Fadeev had begun the war as a senior sergeant flying the I-16 on the Southern Front, and he quickly distinguished himself by his bold strafing attacks, which saw him fly lower than anyone else.

It was during the course of one such attack on an artillery position during the battle for Rostov-on-Don in November 1941 that the engine in Fadeev's fighter was damaged by shrapnel from an exploding ammunition dump. Turning for home, he belly-landed his I-16 in no-man's land. With bullets flying all around him, Fadeev jumped from the cockpit and sprinted to the closest Soviet trench, where he relayed his latest reconnaissance and target information to a senior army officer. The latter in turn targeted his guns on the German artillery emplacement. Fadeev also recommended an immediate counter-attack, and when the infantry left their trenches he unholstered his pistol and led the assault!

In December 1941 he was transferred to 630 IAP, which was equipped with Kittyhawks, and in January 1942 he claimed his first kill, followed by five more by year-end. Late in 1942 Fadeev was posted to 16 GIAP.

The ace soon became a favourite not only with his regiment, but along the entire Soviet front, his skill and boldness, and his good nature, becoming legendary. At the end of April 1943 Fadeev was promoted to captain, and made CO of 16 GIAP's 3rd Sqn. He had flown 394 missions and scored 17 individual and 3 group kills in 43 combats.

The seemingly indestructible Vadim Fadeev was killed in action on 5 May 1943 when his flight of six P-39s was ambushed by a group of eight Bf 109s. Four of the German fighters singled out the Russian ace's P-39, and despite Fadeev's attempt to counter their attacks with head-on passes, he was boxed in from all sides and his aircraft was hit by a burst of fire, wounding him in the side – the *Kobra*'s engine was also badly damaged. Weak from massive blood loss, Fadeev managed to belly land on the



Four well known P-39 aces pose together for the camera in front of Grigori Rechkalov's *Kobra* in mid 1944. They are, from left to right, Capt Aleksandr Klubov, Maj Grigori Rechkalov, Lt Andrei Trud and Maj Boris Glinka. The presence of the latter pilot wearing his major's shoulder boards establishes that this photograph must have been taken between early June, when he was promoted and then replaced Rechkalov as 16 GIAP commander, and 15 July, when he was seriously injured bailing out of his P-39. The solitary Gold Star of the HSU on Rechkalov's uniform further limits the time period to before 1 July. One may guess that this shot was taken shortly after the change of command, with the primary purpose of the gathering being to attest to formal regimental harmony. None of the pilots appears particularly jolly, however! (via G F Petrov)



Aleksandr Klubov was one of the star pilots of 16 GIAP, this formal photo being taken soon after he had received his first HSU in April 1944 (via D Maksimov)

steppe, although he was dead by the time soldiers reached him. He was posthumously awarded the HSU on 24 May.

Arriving at 16 GIAP just weeks prior to Vadim Fadeev's demise was Aleksandr Klubov, who would ultimately achieve even more victories than the bearded ace. Although he had graduated from flying school in 1940, Klubov was not sent to the front until August 1942 – and then to a regiment still flying obsolete I-153s. During the course of 150 sorties he destroyed six aircraft on the ground and four in the air, before being shot down in flames over Mozdok on 2 November 1942. Klubov successfully baled out, although he was badly burned and had to spend months in hospital – his face bore the scars of this incident for the rest of his life.

When Klubov returned to duty, he was promoted to captain and assigned to 16 GIAP as a deputy squadron commander. He soon made an impression. One notable mission took place on 15 August 1943 when his flight of six P-39s found two Fw 189 'Ramas' (Rama is Russian for window frame, which was the pilots' nickname for this most-hated aircraft) with four Bf 109 escorts. Splitting his forces to attack from both sides, Klubov and his pilots downed both 'Ramas' for no losses.

By early September 1943 Aleksandr Klubov had flown 310 sorties and scored 14 individual and 19 shared kills. Receiving the HSU on 13 April 1944, in the spring of that year he was appointed CO of the 3rd Sqn, and later that year named regimental deputy commander for air gunnery.

One of Klubov's notable aerial combats came on 29 May when his formation of eight P-39s intercepted a formation of Ju 88s. In their initial attack his group shot down two bombers, and then, when the escorts intervened, the ace destroyed a Bf 109. The next day his flight met nine Ju 87s, escorted by ten Bf 109s, and Klubov downed the leader of the Stuka formation, thus disrupting the attack. His own aircraft was damaged by one of the Bf 109s, however, and he only just made it back to base. During the subsequent fighting in the Jassy-Kishinev operation, Klubov scored 13 kills in a week, including two Ju 87s on 16 July.

Having survived 457 missions, and scored 31 individual and 19 shared victories, Aleksandr Klubov lost his life in a landing accident while converting from the P-39 to the La-7 on 1 November 1944. He was posthumously awarded a second HSU on 27 June 1945.

On 2 May 1944 9 GIAD, now led by Col Pokryshkin, returned to the front and joined in the action leading up to the Jassy-Kishinev campaign, which destroyed Germany's southern front and knocked Romania out of the war. Following this comprehensive victory, 9 GIAP transferred north for the Lvov-Sandomir operation, and finally the invasion of Germany.

Pokryshkin now had the administrative and command responsibilities of a division commander, although he still found time for combat. On 18 July he scored two kills, followed by a high altitude reconnaissance aircraft several days later. The following month Pokryshkin became the first member of the armed forces to receive a third HSU for completing 550 missions by May 1944, and scoring 53 individual and 6 shared kills in 137 combats, while at the same time showing outstanding leadership.

It was around this time that Pokryshkin began to experience serious pressure from senior commanders to have his regiment swap its P-39s for a good Soviet-built fighter such as the Yak-9 or La-7. However, Pokryshkin had great affection for the *Kobra*, and steadfastly refused to

change. The fact that fellow ace Klubov had been killed flying the La-7 only strengthened his opinion.

Although Pokryshkin was coping admirably with his new position, his successor at 16 GIAP, Grigorii Rechkalov, was not doing so well. Shortly after his appointment, one of his pilots was killed due to the carelessness of a mechanic, and then on 31 May 1944 he was involved in a disastrous battle over Jassy. Messerschmitts succeeded in getting between the strike group led by Rechkalov and the covering group led by Klubov, and five P-39s were swiftly downed. 16 GIAP's CO was immediately stripped of his command by Pokryshkin 'for losing control, indecisiveness and lack of initiative', and he was replaced by 100 GIAP's Boris Glinka.

Despite his demotion Rechkalov kept flying, and by June he had completed 415 missions and engaged in 112 combats. His score stood at 48 individual and 6 shared kills, and he won his second HSU on 1 July. Two weeks later, on the 15th, Boris Glinka was wounded in action when he baled out of his badly damaged P-39 and struck its tailplane. Breaking his collarbone and both legs, he was unable to return to combat before war's end, so Rechkalov was made CO of 16 GIAP once again.

Rechkalov and Pokryshkin continued to clash, however, the latter believing in teamwork and military discipline, which were both qualities that Rechkalov sorely lacked. Indeed, the great ace had always been notorious for his indiscipline in flight, breaking formation to chase individual victories, and personal glory. Rechkalov was again relieved of his command in February 1945 and assigned to division headquarters, where he continued to fly, but had no command responsibilities. By VE-Day Grigorii Rechkalov had flown 450 sorties and engaged in 122 combats, claiming 56 individual and 6 shared victories.

In February 1945 9 GIAD crossed into Germany, the division penetrating so far that it could not find a suitable airfield. Pokryshkin solved the problem by improvising – he landed on a section of German autobahn and decided that it would make a good runway. The division followed him down and quickly began operating from the highways, taking special care to conceal its P-39s from prying enemy reconnaissance aircraft. This move caused consternation amongst the Germans, who struggled to ascertain where the *Kobras* were flying from.

Numerous low-level flights and ground reconnaissance patrols were conducted in order to locate Pokryshkin's base, and eventually the autobahn 'airstrip' was discovered. The Luftwaffe immediately launched a series of raids on the highways, but they still had trouble finding the camouflaged targets. Several aircraft were damaged, however, and one of 16 GIAP's squadron COs, Capt Tsvetkov, was killed on the ground.

After Rechkalov was made 9 GIAD's Inspector for Flight Training, Ivan Babak became CO of 16 GIAP, although his period in charge only lasted until 22 April, when he was shot down by flak and captured.

Pokryshkin continued flying until VE-Day, by which time he had

Snr Lt Konstantin Sukhov's P-39 takes off from a German autobahn in April 1945. Sukhov flew with 16 GIAP, and won the HSU for 22 victories, 19 of them in the P-39. Note that the insignia's white circle remains unpainted. Also note the bomb affixed to the centreline stores pylon (via Vandor)



completed 650 sorties and engaged in 156 combats. He was officially credited with 59 individual and 6 group victories, although he maintained that he actually scored 72 individual kills, including those which could not be confirmed because they crashed too far behind enemy lines. In addition to Pokryshkin's own victories, 30 pilots under his command were made HSUs, with several receiving the award twice.

Although ranking Soviet ace Ivan Kozhedub's total of 62 individual kills exceeds Pokryshkin's 59, the additional shared victories, and his crucial role in training other aces, marks him out as both the 'Boelcke' and the 'Richthofen' of the Soviet Air Force.

27 IAP

Yet another regiment to re-equip with the P-39 in 1943 was 27 IAP, which had spent the first year of the war assigned to the Moscow PVO district. In the summer of 1942 it was sent to the Stalingrad Front, and in the spring of 1943 the unit converted to the P-39 and was assigned to 205 IAD – on 8 October 1943 it was redesignated 129 GIAP.

Its commander from April 1943 was one of the greatest, but least known, Soviet aces, Vladimir Bobrov. He flew 451 sorties and scored a total of 30 individual and 20 shared victories, plus two Me 262s destroyed on the ground. Bobrov had also fought in the Spanish Civil War, flying 126 sorties and claiming 13 individual and 4 shared kills.

He had scored his first victory of World War 2 on the opening day of Operation *Barbarossa* and his last on the final day of the conflict, and of the novice fighter pilots Bobrov trained between June 1941 and May 1945, 31 of them won the HSU. For some reason he never personally received the HSU, or any of the other official awards that fell copiously to other, lesser Soviet aces. Whatever the nature of Bobrov's problem, whether it was 'political' or a blunt and outspoken manner, he seems to have made enemies of men in power – and with long memories. The ace's offence seems not to have happened until later in the war, because after early combat in 1941-42, followed by a break for staff training, the veteran ace was appointed commander of 27 IAP on 4 April 1943.

The regiment distinguished itself at Kursk and in the subsequent Belgorod-Kharkov offensive, scoring 55 victories. In a typical mission for this period, on 6 July, Bobrov led ten P-39s to intercept a group of 27 Ju 87s and 12 Bf 109s. In the ensuing fight, the Soviet pilots successfully repelled the raiders, and each claimed a kill apiece, while suffering no losses themselves. At the beginning of 1944, for no discernible reason, Bobrov was removed from command of his regiment.

Surviving members of 27 IAP remember him as a good CO, as well as an excellent pilot and affable character. It seems almost certain that high-ranking military officials held an animus against him, which seems to have followed his career.

As was typical in the Soviet Union during this period, a man removed from a command position became 'infectious', and nobody would approach him or offer him a new military assignment. Only Pokryshkin, who was acquainted with Bobrov only via aerial radio transmissions and reputation, had the strength of character and personal authority to welcome him into his division. He made him CO of 104 GIAP in May, and Bobrov demonstrated that the trust was well placed.

Lt Col Ivan Lyubimov was commander of 11 GIAP-ChF in late 1943, and in October of that year he was made CO of 4 IAD-ChF. He flew 115 missions and scored ten victories, four of them in P-39s. All of Lyubimov's *Kobra* kills came after he had recovered from losing a leg earlier in the war (via G F Petrov)



His greatest day came in September, when he and his wingman attacked a formation of He 111s, shooting down three bombers apiece. Still flying a P-39 at war's end, Bobrov's final victory came on 9 May 1945 over Czechoslovakia. Nominated for the HSU during the final months of the conflict, the ace was denied the award both by Chief Marshal Novikov and, some years later, by Chief Marshal Vershinin. Whatever Vladimir Bobrov's offence, it left a long memory. In 1971 he died in obscurity, but on 20 March 1991 his exploits were recognised by President Boris Yeltsin when the ace became one of the last people to receive the HSU.

Nikolai Gulaev was another outstanding Airacobra ace who served initially under Bobrov in 27 IAP. At the beginning of the war he had been assigned to an air defence regiment situated away from the front, and he saw no action until April 1942. On one occasion he took off without orders during a night raid, and by moonlight downed an He 111. In February 1943 Gulaev completed a course for flight commanders and was sent to 27 IAP, where he soon established his reputation.

By June 1943 he was a senior lieutenant and a deputy squadron commander, having scored 16 individual and 2 shared kills in 95 missions. One of these victories was by *taran* on 14 May 1943. Gulaev intercepted a formation of Stukas and downed the lead aircraft. Attacking a second dive-bomber, he managed to silence the rear gunner but then ran out of ammunition, so he closed in and rammed the Ju 87 with his wing. His own aircraft was so badly damaged that he too had to bale out.

Gulaev particularly distinguished himself in the Battle of Kursk, and on the opening day of this pivotal clash (5 July) he flew six sorties and shot down four aircraft. On the 6th he destroyed an Fw 190, on the 7th a Ju 87 as an individual victory and an Fw 189 and Hs 126 as group kills, on the 8th a Bf 109 and on the 9th two bombers over Belgorod, one of them by *taran*. Three days later Gulaev was made CO of the 2nd Sqn.

The regiment then withdrew in order to re-equip with new P-39s, before returning to the front in August. On the 9th Gulaev downed a Ju 87, followed by a Ju 88 two days later and a pair of Bf 109s on the 12th. This scoring run brought him the HSU on 28 September. In January-February 1944 he flew in support of the battle for Kirovograd, and then the Korsun-Shevchenkovskii operation. In March Gulaev enjoyed leave at home, but he returned in April and claimed ten kills in two weeks.

His first victories during this period came on the 18th when he downed two Ju 87s and a Bf 109 while providing aerial cover for ground forces in the Shera region. Exactly one week later Gulaev shot down four Fw 190s in a single combat over Dubossary, his wingman claiming two kills during the same mission. Four other members of his formation also destroyed another five Fw 190s, all without loss.

On 30 May Gulaev again downed four aircraft when he destroyed an Hs 126, a Ju 87 and two Bf 109s. However, in his last sortie of the day he was wounded in the leg, and the ace only just made it back to base – the remaining five members of his formation were all lost, with one being killed and one posted missing. A brief stay in hospital ensued, but he soon returned to his regiment, and on 1 July 1944 he was awarded his second HSU for having scored a further 42 individual and 3 shared victories.

By August Gulaev had been promoted to major, and he downed Fw 190s on the 10th, 11th and 12th of that month. Forty-eight hours



The pilot in this photograph has been identified as being Capt Dmitrii Zyzun, who served with 11 GIAP-ChF for much of the war. A veteran of 535 missions, he scored 15 victories and duly received the HSU. In August 1945 Zyzun also briefly saw action in the war against Japan (via Kulikov)

later he fought his last aerial battle. While flying with a novice on his wing, Gulacy was bounced by German fighters and badly shot up. Although wounded yet again, he turned into his opponents and shot down two of them before breaking off and escaping. Crash-landing back at his airfield, the ace was rushed to hospital, although on this occasion he did not recover in time to return to operations before hostilities had ended. These final kills raised his total to 57 individual and 3 shared victories, including no less than 4 by *taran*.

9 GIAP

9 GIAP, which received *Kobras* in August, was known as 'the Regiment of Aces', and it was the one outfit in the Soviet Air Force whose renown almost matched 16 GIAP, after whom it ranked third in order of accomplishments with 558 victories.

The regiment had begun the war as 69 IAP, equipped with the I-16, and it had distinguished itself in the defence of Odessa and southern Ukraine. Awarded its Guards number on 7 March 1942, the regiment had switched to LaGG-3s and Yak-1s during the course of the year. In October 1942 9 GIAP had been reorganised as an elite regiment manned by handpicked aces, all of whom had been transferred in from other units within the 8th Air Army. Pilots were assigned to 9 GIAP 'on probation', and those who did not prove themselves by scoring victories in the first two weeks, or who otherwise failed to meet the commander's standards, were sent to other regiments, where they generally proved themselves very superior – just not quite superior enough for the 9 GIAP!

In August 1943 this elite regiment was re-equipped with the P-39L, amongst other variants, although it subsequently flew the *Kobra* for just ten months. In July 1944 9 GIAP was withdrawn from the front to convert to the new La-7, and thus become one of the few units to actually replace its P-39s with another fighter type.

Because 9 GIAP flew the P-39 for a relatively brief period of time, its most famous aces are all associated with the Yak-1 and La-7. However, three names must be briefly mentioned – Sultan Amet-Khan, Aleksei Alelyukhin and Vladimir Lavrinenkov.

Sultan Amet-Khan had flown Hurricanes and Yak-1s prior to converting to the P-39. While flying the latter he claimed 6 individual and 8 shared kills (out of a total of 30 individual and 19 shared victories), including an Fw 190 which crashed near his home town.

Aleksei Alelyukhin flew with the regiment from the start of the war, and by Victory Day he was 9 GIAP's deputy commander, with two HSUs, 40 individual and 17 shared kills to his credit. Although it is impossible to apportion his victories amongst the aircraft he flew, it appears that Alelyukhin scored at least 17 individual victories in the P-39.

Vladimir Lavrinenkov had already claimed 22 individual and 11 shared victories by the time he transitioned to the P-39. Within days of returning to the front in August 1943 he had shot down three more German aircraft. However, on the 24th of that month Lavrinenkov rammed an Fw 189 over the frontlines and spent a period of time as a prisoner, before escaping back to his unit. He returned to the air in October, and by war's end had scored 36 individual and 11 shared victories, of which 11 individual kills were claimed in the P-39.

OTHER LEND-LEASE FIGHTERS

By late 1942 the British government was at last able to supply the Soviets with examples of the oft-requested Spitfire, the first shipment of Mk Vs arriving in Iran in January 1943. During the course of the year, some 150 Mk Vs were handed over, plus a further 50 non-airworthy airframes that were broken up for spares.

The first regiment to receive Mk Vs was 57 GIAP, which had begun the war in the Transcaucasus, and only joined the fighting in May 1942. Led by Maj Aleksandr Osipov, it flew I-16s in combat from the Crimea to Stalingrad. While flying Polikarpovs, the regiment produced just two aces, namely their CO, Maj Osipov, who had scored four individual and two shared victories, and Snt Lt Sergei Azarov, who claimed seven individual and eight shared kills.

Following the successful defence of Stalingrad, the regiment was sent to 25 ZAP to rebuild with new fighters and pilots. Redesignated 57 GIAP on 8 February 1943, the regiment received Spitfire Mk Vs prior to returning to the North Caucasus Front in April 1943 with 216 SAD.

This division was also introducing 16 GIAP's P-39s into combat at the same time, and it fared rather better in action than 57 GIAP. From the moment the latter regiment returned to the front it suffered losses. While the Spitfire had good performance and manoeuvrability, it was most likely to encounter the Bf 109G, rather than the older Bf 109F, and the *Gustavs* were being flown by some of the best German *Jagdgruppen*, such as III/JG 52, at the height of their powers. To make matters worse, the Spitfire was an unfamiliar type for the Russians, and 57 GIAP lost a number of its fighters when they were mistakenly downed by other VVS fighters and communist flak.

The Spitfire's narrow landing gear also proved to be too fragile when subjected to unimproved Soviet landing fields and the rough handling of many Russian pilots. As early as July 1943 the regiment passed on its surviving Spitfires to 821 IAP and began retraining on the P-39Q, although the unit's pilots seem to have distinguished themselves with the *Kobris* scarcely more.



This Spitfire Mk VB was delivered to the Soviet Union on 11 January 1943, and was assigned to 57 GIAP and operated over the North Caucasus (via G F Petrov)



Spitfire Mk VB EP356, was delivered on 1 March 1943. Unfortunately, it is impossible to determine the regiment to which it was assigned (via G F Petrov)

The most successful VVS Spitfire Mk V pilot was Snt Lt Sergei Azarov, whose total of seven individual and eight shared victories may have included a few kills with the British fighter – 57 GIAP barely scored 12 kills with the aircraft in total.

Azarov's final sortie with the Spitfire Mk V came on 8 May 1943, when, in the immediate aftermath of his squadron commander being shot down over German territory, he flew low to provide cover for his CO as he descended in his parachute. Azarov's aircraft was then also hit by enemy ground fire and set alight. The ace managed to reach friendly territory before crash-landing, but he died of his wounds two days later. Azarov was duly awarded a posthumous HSU.

821 IAP operated 57 GIAP's cast-off Spitfire Mk Vs over the North Caucasus and the Blue Line only until September 1943, when it too switched to P-39s after having accomplished even less of note with the aircraft. 117 and 267 IAPs (both of 236 IAD) also briefly flew Spitfire Mk Vs over the North Caucasus in 1943, again without distinction, before transitioning to Yak fighters.

Yet another unit to enjoy little success with the Spitfire Mk V was 16 IAP of 320 IAD-PVO, operating in the Moscow Air Defence Zone. Its failure to distinguish itself may be blamed less on the aircraft, or the pilots, and attributed to the fact that by mid 1943 the regiment seldom encountered serious air combat.

Air interception duty proved to be the VVS's preferred use for the Spitfire, since PVO units protected fixed locations and flew from developed airfields that were less likely to inflict damage on the British fighter's fragile landing gear. Also, Spitfires had the usual lend-lease virtues of a superior radio and better flight instruments when compared with home grown types, and this made the aircraft perfectly suited to the Soviet system of directing interceptors by ground control radio vectoring. Finally, while high altitude performance was not so useful for supporting the troops, it was essential for trying to intercept high-altitude reconnaissance infiltrators who were the PVO's biggest concern from 1943 onwards.

7 IAP-ChF of the Black Sea Fleet also used a few Spitfire Mk Vs in 1943, but evidently not to any great extent. Indeed, the unit's main activity was experimenting with launching the aircraft from catapults!

From February 1944, the Soviets began to receive Spitfire Mk IXs. Totals for this aircraft appear to have been 190 LF IXCs, 989 LF IXEs and 2 HF IXEs, with the latter being used primarily for flight testing. These Spitfires included both clipped and regular wing variants, and they served with a dozen PVO interceptor regiments that were mostly based well out of range of the frontline. 26 and 27 GIAPs did see combat with the Spitfire Mk IX, however, both as part of the Leningrad Air Defence system.



Lt Col Vasili Matsievich was CO of 26 GIAP (via G F Petrov)

These pilots are posing in front of a Spitfire Mk IX probably in May 1945. About half of them are wearing the Guards badge on their tunics, indicating that this is a Guards regiment (via G F Petrov)



26 GIAP had previously flown Hurricanes and Tomahawks, as well as a variety of Soviet fighters, and was one of the first regiments to receive Spitfire Mk IXs in the wake of their delivery.

The regiment commander was 31-year-old Lt Col Vasilii Matsievich, who by 1944 was one of the VVS's 'old men', having been a pilot for eight years. He saw action during the September 1939 invasion of eastern Poland and the Finnish War of 1939-40, and by June 1941 he was an experienced squadron deputy commander within 26 IAP, which was in turn part of the Leningrad PVO system. Matsievich's regiment flew the I-16 both day and night, and he scored his first victory during a nocturnal interception on 25 October 1941. He continued to fly day/night missions over the coming months, conducting both ground strafing as well as interceptions.

On 21 November 1942 Matsievich's regiment was given the designation 26 GIAP in one of the very few instances where a unit retained its original number after being awarded Guards status.

By February 1943, Matsievich had flown 196 missions and scored 16 individual and 6 shared kills, and also been shot down at least twice. He received the HSU on 14 February 1943 and was promoted to major shortly afterwards. Later that same year he was promoted again, to lieutenant colonel, and made regiment commander.

Matsievich was known to be something of a perfectionist, who had a particular interest in aerial tactics. He was also a talented pianist. After taking command of the regiment, Matsievich scored at least two more victories, perhaps flying the Hurricane, which had replaced the I-16 for night missions. From 1944 he flew the Spitfire Mk IX, and may have increased his score further battling German units which clung on in the Leningrad region longer than in the rest of the USSR.

26 GIAP's other outstanding pilot was Nikolai Shcherbina, who, like Matsievich, was also a pre-war aviator. He too began the war serving with the regiment, and remained with the unit for the entire conflict. He was a skilled pilot, having been one of the first to master the difficult MiG-3. Indeed, on 29 August 1941 he managed to score three victories with it.

By 1944 Shcherbina had been promoted to captain and made regimental chief navigator. He had completed 424 sorties, 120 of them at night, and scored 11 victories, 3 of them at night, in 51 aerial combats. Shcherbina had also destroyed 12 aircraft on the ground by strafing. Although details are lacking, it is likely that he scored at least two of his kills in Spitfires. On 24 August 1944 Shcherbina was awarded the HSU.

27 GIAP, which had been 123 IAP prior to 21 November 1942, also included an outstanding pilot within its ranks in the form of Aleksandr Karpov, who had been a member of the regiment from the start of the war. He was unusual in that his wingman, Ireni Belyaev, was as talented as he, and they would regularly swap the role of pair leader. Only in July 1943 was this team broken up when both pilots were shot down during a clash with a



An unidentified Russian Spitfire pilot from 26 GIAP stands alongside his aircraft. The location of the Guards badge behind the cabin seems to have been peculiar to this unit (via G F Petrov)

Spitfire LF IX MJ858 was handed over to the Soviet Union at Basrah on 6 May 1944 (via G F Petrov)



superior force of Bf 109s. Belyaev was killed, but only after Karpov had shot down two enemy fighters and was trying to ram a third when the tail of his fighter was completely shot off.

By August 1943 Karpov was a captain, and a squadron commander. He was awarded his first HSU for 16 individual and 7 shared victories scored in 370 sorties and 87 combats. By June 1944, Karpov had flown another 51 sorties and scored ten more kills in seven combats, for which he received his second HSU on 22 August.

During the late summer of 1944 it became 27 GIAP's turn to receive Spitfire Mk IXs, and perhaps two of those kills credited to Karpov were scored in the British fighter. It is certain that he was flying a Spitfire when he shot down an Fw 190 over Estonia on 19 September.

On 20 October 1944 Karpov was pursuing a German reconnaissance aircraft at high altitude when the oxygen apparatus in his aircraft failed. He lost consciousness and crashed to earth. By that time Karpov had flown 519 sorties and engaged in 130 aerial combats, claiming a total score of 30 individual and 7 shared victories.

At war's end 946 Spitfires (mainly Mk IXs) remained in service with PVO fighter regiments, but these were soon replaced.

MUSTANGS AND THUNDERBOLTS

In May 1942 the British sent four Mustang Is to the Soviet Union for evaluation, and the following autumn three of these aircraft were issued to 5 GIAP for field testing. They were briefly flown by leading aces Vitalii Popkov and Vasili Zaitsev whilst with the regiment, but neither pilot seems to have scored any victories on the type.

Three P-47D-10s were delivered across the AlSib Trace in 1943. These were followed in 1944 by 100 P-47D-22-REs and 100 P-47D-27-REs, shipped via Iran – 194 Thunderbolts actually made it to the USSR.

Once again, a fighter beloved by its western pilots found little favour with the communists. Famed test pilot Mark Gallai, who flew both fighters (scoring at least ten kills) and Pe-2 bombers in operational tests at the front, commented:

'The P-47 Thunderbolt is not a fighter. It is bigger and heavier than our standard frontal bomber (the Pe-2) and has a longer range. It carries more bombs and is more heavily armed.'



Two unidentified pilots receive a last minute briefing prior to flying a sortie in a two-seat Spitfire Mk IX (via G F Petrov)

A Political Education session is seen underway at a Spitfire Mk IX regiment in mid 1944 (via G F Petrov)





Clipped wing Spitfire LF IX SM622 was delivered on 6 January 1945, and was photographed during Nil-VVS testing (via G F Petrov)



The VVS's first Thunderbolt, this P-47D-10-RE was delivered in late 1943 and sent to the Nil-VVS for testing in early 1944. It was paid for by the Knights of Pythias fraternal lodge (via G F Petrov)

One of the 100 P-47D-27-REs sent to the Soviet Union in late 1944 (via G F Petrov)



Perhaps because of its range, and its load-carrying ability, the P-47s were assigned to the Naval Air Regiments, primarily of the Northern Fleet. 2 GIAP-SF (Boris Safonov's old regiment) received some P-47s, as did 255 IAP-SF, and both units flew a number of anti-shipping strikes along the Finnish-Norwegian coastline during 1945. However, there

is no information to suggest any notable results, or any aerial combat. A few more Thunderbolts were allocated to 15 ORAP-KBF, which flew a number of reconnaissance sorties over the Baltic, also without significant results.

The last fighter provided to the Soviet Union in significant quantity was the P-63A/C Kingcobra, 2421 of which were supplied from June 1944 – 2400 arrived via the AISib

Trace. Much mythology surrounds the combat careers of these aircraft. The fact is that the sheer length of the AISib Trace, the short daylight hours in the north, and its tendency to attract poor flying weather, all conspired against the P-63 to the point where very few aircraft had arrived at the front in time to see action against the Germans prior to VE-Day.

Some 36 P-63s had indeed been delivered to Pokryshkin's 9 GIAD in early May 1945, but with the division engaged in the final battle around Berlin and the Luftwaffe already beaten, units were too busy flying ground support and blockade missions to undertake a conversion onto the new fighter. The P-63s were duly parked until after the final surrender. Regiments within 5 GIAD, which also began to receive P-63s at the same time, did exactly the same thing.

Another factor delaying the fighter's arrival at the front was the fact that a number of PVO fighter regiments in the rear re-equipped with the Kingcobra first, and a significant number were retained in the Far East for the coming war against Japan.

From the spring of 1945, the VVS had begun to redeploy units of ground and air forces to the Far East. Little is known about the

process, but we do know that when 17 IAP was sent to the Far East, it abandoned its P-39s in the west and travelled east by train. Upon arrival in the Transbaikalian Military District, the unit received new P-63s, with which they went to war in August 1945. Also equipping with the P-63 was 245 IAD of the Transbaikalian's 12 Air Army. The two regiments of this division – 781 and 940 IAPs – had spent the war keeping a watchful eye on Japan whilst operating obsolete fighter types, and they desperately needed something new.

On the Kamchatka Peninsula, 888 IAP had traded in its I-16s (the last in Soviet service) for P-63s in August 1945. Certainly, other eastern regiments, as yet unidentified, also received the P-63.

The Soviet attack on Japan, codenamed Operation *August Storm*, began on 9 August 1945 and lasted barely a week against Japanese forces already starved of fuel and other resources. The Transbaikalian Front's drive into Manchuria was opposed by particularly weak opposition, and only one known aerial combat was recorded.

On 15 August Capt Vyacheslav Sirotnin and his wingman, Jnr Lt I F Miroshnichenko, of 17 IAP were patrolling in their new P-63s. Sirotnin was a veteran ace who had flown P-39s (amongst other fighter types) against the Germans, and had scored 26 victories during more than 300 sorties, for which he had received the HSU in 1945. His wingman appears to have been a novice, however. Spotting two specks at low level in the distance, they quickly identified two Japanese fighters – either Ki-43 'Oscars' or Ki-27 'Nates' – which were hoping to attack Soviet transport aircraft. The P-63 pilots instead made short work of the enemy aircraft, Sirotnin allowing his wingman to make the kill. Miroshnichenko succeeded in shooting down one of the Japanese fighters, but the other machine escaped at treetop height.

During the brief war with Japan, the Pacific Ocean Fleet air units were also active, attacking enemy shipping and providing air cover and support for their own amphibious operations in the Sakhalin Islands. One of these units was 6 IAP-TOF (Pacific Ocean Fleet), which had converted from I-16s to P-63s just prior to the declaration of war with Japan. Although details are scarce, Soviet sources report that two pilots from this regiment – V G Cherepnin and Lt Aleksei Goltvenko – brought down aircraft by ramming them. Both men baled out and were rescued, with Lt Goltvenko being awarded the HSU for his actions.



A G Kochetkov poses in P-63A-10 42-68939 prior to departing on a test flight from the Bell factory on 29 April 1944. The white X was for aerial observation of the aircraft. Soon after taking off, the fighter broke up while performing high-G manoeuvres, but Kochetkov was able to escape by parachute (via G F Petrov)

This P-63A is something of a mystery machine, as the white ball over the exhaust stubs is probably a test marking, but the nose numbers suggest an operational unit (via G F Petrov)



One final lend-lease aircraft that should be mentioned for its fleeting use as a fighter by the Soviets is the Douglas A-20G. During the war the USSR received about 3000 examples of the twin-engine bomber, including all the major variants from the DB-7 through to the A-20J, and, in particular, 1441 G-models of various subtypes.

The great majority of these aircraft were used as frontal/torpedo bombers or as reconnaissance platforms. However, a small number of naval pilots used their A-20G-1s as fighters too, employing the bomber's considerable armament against whatever German aircraft happened to stray across the nose of the Douglas twin. Indeed, the A-20's four 20 mm cannon and two machine guns were devastating against flying-boats and Ju 52/3m transports which were routinely encountered on the Northern Front.

A handful of pilots even attained ace status in the A-20G, including Ivan Shamanov. An old man in comparison with his contemporaries in 1 GMTAP-KBF (Guards Mine Torpedo Regiment - Baltic Fleet), he had completed flying training in 1928, and had enjoyed a pre-war career as an airline pilot, prior to returning to the military in 1941. By September 1943 Shamanov had flown 129 sorties and been credited with sinking four enemy transport vessels and shooting down eight aircraft, for which he was awarded the HSU on 22 January 1944.

A few other A-20G-1s were modified as nightfighters for two regiments assigned to Long Range Aviation. In September 1943 173 BAP (Bomber Aviation Regiment) converted from the Pe-2 to the A-20G-1 and was redesignated 112 AP-ON (Air Regiment - Special Purpose), followed by 45 BAP, which became 113 AP-ON the following month. These two regiments were grouped into 56 AD (Aviation Division), with their mission being to fly as intruders over German territory and attack enemy bombers, nightfighters and airfields.

On 10 January 1944 the two regiments were both given Guards status as 26 and 27 GAPI-DDs (Guards Air Regiment - Long Range Fighter). Most of their A-20Gs were fitted with primitive Soviet airborne radar (Gneis-3) and sported numerous long aerials and antennae all over the wings and fuselage. A number of others were modified instead to carry a special gun pack installed in the bomb-bay which featured two 20 mm cannon and two 12.7 mm machine guns that could be rotated downward at an angle for ground strafing.

Most of the regiments' time was spent training, so relatively few sorties were flown, and they seemed to enjoy little success. It appears that by the end of the war both units had managed to engage in only 13 aerial combats, and a Capt Kazanov had shot down two He 111s and a Lt Shesterikov a DFS 230 glider!

These results hardly seem to have justified the diversion of such effort to modify the A-20Gs for nocturnal use.



A very rare shot of an operational P-63C-5 coming in to land. Photos of Soviet Kingcobras in frontline service are virtually non-existent (via G F Petrov)

APPENDICES

Fighter Regiments that used Lend-Lease Aircraft

Hurricane Regiments

1G, 20G, 26G, 38G (629), 84G (788), 4, 9, 35, 46, 67, 145, 147, 152, 157, 179, 180, 191, 195, 197, 246, 269, 383, 429, 434, 435, 436, 438, 439, 441, 485, 486, 488, 572, 609, 628, 631, 728, 729, 730, 736, 744, 760, 767, 768, 769, 773, 787, 802, 814, 826, 833, 835, 837, 839, 841, 858, 908, 910, 933, 934, 936, 964, 966, 982, 983, 17 GShAP, 2G-SF (72 SAP-SF), 3G-KUF, 10G-KBF, 20SF, 27SF, 78SF, 53 SAP-BVF, 54 SAP-BVF

Tomahawk Regiments

26G, 28, 126, 147, 152, 154, 158, 159, 195, 196, 309, 760, 2G-SF (72 SAP-SF), 78SF

Kittyhawk Regiments

14G, 16G, 19G, 20G, 28G, 29G (154), 38G, 39G (731), 67G (436), 68G (46), 147G (630), 10, 25, 26, 28, 35, 45, 84, 126, 147, 152, 158, 159, 161, 191, 195, 196, 233, 238, 246, 268, 383, 481, 572, 629, 729, 740, 760, 767, 768, 769, 773, 802, 858, 907, 910, 933, 934, 936, 964, 2 G-SF (72 SAP-SF), 7ChF, 27SF, 62ChF, 78SF, 255SF, 53 SAP-BVF, 54 SAP-BVF

P-38 Airacobra Regiments

9G, 16G, 19G, 20G, 21G, 28G, 30G, 38G, 39G, 54G, 55G, 57G, 67G, 68G, 69G, 72G, 100G (45), 101G (84), 102G, 103G, 104G (298), 129G, 211G (9), 212G (438), 213G (508), 17, 28, 66, 153, 185, 196, 246, 266, 295, 352, 403, 416, 439, 488, 494, 518, 629, 631, 738, 773, 821, 907, 908, 964, 2G-SF, 11G-ChF, 7ChF, 20SF, 27SF, 31TOF, 43ChF, 78SF, 255SF

P-63 Kingcobra Regiments

17, 21, 28, 39, 781, 821, 888, 940, 6TOF

P-47D Regiments

2G-SF, 255SF, 15 DRAP

Spitfire V Regiments

57G, 16, 117, 267, 821, 7ChF

Spitfire IX Regiments

11G, 26G, 27G, 102G, 16, 67, 177, 348, 439, 767, 787, 802

Key

IAP – Fighter Air Regiment
 GIAP – Guards Fighter Air Regiment
 ShAP – Assault Air Regiment
 SAP – Composite Air Regiment
 ZAP – Replacement Air Regiment
 ORAP – Independent Reconnaissance Air Regiment
 SF – Northern Fleet
 KBF – Baltic Fleet
 ChF – Black Sea Fleet
 BVF – White Sea Flotilla
 TOF – Pacific Ocean Fleet

Lend-lease Aces Roster

| Name | Rank | Award | Unit | Victories/ (Ind & St) | Sorties/ Combats | Date KIA | Notes |
|-----------------------------------|--------|---------|------------------|--------------------------|---------------------|-------------|---|
| Adonkin, Vasilii Semyonovich | Maj | HSU | 78 IAP-SF | 16 & 6 | 365/42 | 17/3/44 | (Hurricane, P-39) |
| Akirshin, Sergei V | Jr Lt | | 129 GIAP | 7 | 70/12 | 30/5/44 | |
| Alelykhin, Aleksei Vasil'evich | Capt | 2 x HSU | 9 GIAP | 40 & 17 | 601/258 | | (17 & 11 in P-39) |
| Arnat-Khan, Sultan | Maj | 2 x HSU | 9 GIAP | 30 & 19 | 603/150 | | (5 in Hurricane, maybe 9 & 8 in P-39) |
| Arnosov, Dmitrii Fyodorovich | Capt | | 2 GIAP-SF | 9 | 231/7 | 11/5/44 | (Hurricane, P-40E, P-39C) |
| Arkhipenko, Fyodor Fyodorovich | Col | HSU | 129 GIAP | 30 & 14 | 467/102 | | (26 & 4 in P-39) |
| Askrenko, Ivan | | | 438 IAP | 5 | | | |
| Avdaev, Aleksandr Fyodorovich | Sr Lt | HSU | 153 IAP | 11 | 189/7 | 2/10/43 | (4 in P-39, 1 <i>taran</i>) |
| Azarov, Sergei Semyonovich | Sr Lt | HSU | 57 GIAP | 7 & 8 | 324/47 | 10/5/43 | (several in Spitfire Mk VI) |
| Babaev, Aleksandr Ivanovich | Capt | HSU | 196 IAP | 9 & 1 | 260/48 | | |
| Babak, Ivan Il'ich | Capt | HSU | 100 GIAP | 33 & 4 | 330/103 | | (1 in Yak-1) |
| Bakharev, Yakov | Lt | | 485 IAP | 7 & 5 | | summer 1942 | (all in Hurricane) |
| Balyck, Ivan Fyodorovich | Maj | HSU | 54 GIAP | 25 & 5 | 500/135+ | | (11 & 2 in P-39) |
| Bashtikov, Vyacheslav Filippovich | Maj | HSU | 788 IAP/907 GIAP | 18 | 312/? | | (some in I-16, LaGG & Yak) |
| Batyayev, Vasilii Sergeevich | Capt | HSU | 54 GIAP | 19 & 7 | 639/234 | | |
| Bekashevok, Mikhail Vasil'evich | Capt | HSU | 129 GIAP | 18 & 4 | 170/50 | | (most in P-40) |
| Belyasnik, Pyotr Nikiforovich | Maj | HSU | 126 IAP | 9 & 17 | 250/73 | | (5 & 8 in P-39) |
| Bendeliani, Chichiko Kaisarovich | Maj | HSU | 54 GIAP | 12 & 20 | 400/90 | 20/7/44 | (some in Yak) |
| Berestnev, Pavel Maksimovich | Sr Lt | HSU | 100 GIAP | 12 & 12 | 131+/32+ | | |
| Berkutov, Aleksandr Maksimovich | Maj | HSU | 101 GIAP | 15 | 332+/68+ | | (1 <i>taran</i>) |
| Beryozkin, Vyacheslav A. | Jr Lt | | 16 GIAP | 12 | | | (all in I-16, P-40 & P-39) |
| Bilyukin, Aleksandr Dmitrievich | Capt | HSU | 196 IAP | 23 & 1 | 430/35 | | (plus 13 & 4 in Spain) |
| Bobrov, Vladimir Ivanovich | Lt Col | HSU | 129/134 GIAP | 30 & 20 | 451/112 | | (all in P-39) |
| Bochkov, Ivan Vasil'evich | Capt | HSU | 19 GIAP | 8 & 32 | 350/50 | 4/4/43 | (all in P-39) |
| Bogomazov, Grigori Ivanovich | Sr Lt | HSU | 103 GIAP | 15 & 4 | 400/60 | | |
| Bokii, Nikolai Andreevich | Sr Lt | HSU | 2 GIAP-SF | 17 & 1 | 385/30 | | (4 in Hurricane, 5 in P-40 & 8 in P-39) |
| Bondarenko, Vasilii Efimovich | Sr Lt | HSU | 16 GIAP | 24 | 324/68 | | (19 in P-39) |
| Borisov, Ivan Grigor'evich | Sr Lt | HSU | 9 GIAP | 25 & 8 | 250/86 | | (18 in P-39) |
| Bukchin, Semyon Zinov'evich | Jr Lt | | 129 GIAP | 12 & 4 | 144/44 | | |
| Burgunov, Nikolai F | Lt | | 129 GIAP | 8 | 89/16 | | |
| Burmatov, Vladimir Aleksandrovich | Sr Lt | HSU | 255 IAP-SF | 12 & 1 | 197/43 | | |

| | | | | | | |
|------------------------------------|--------|---------|------------------|----------------|---------|--|
| Golovachyov, Pavel Yakovlevich | Capt | 2 x HSU | 9 GIAP | 31 & 1 | 457/125 | (many in LaGG-3, Yak & La-7) |
| Golubev, Georgii Gardeevich | Sr Lt | HSU | 16 GIAP | 12 | 252/56 | |
| Golushkov, ? ? | Lt | | 21 GIAP | 11 | | |
| Gorbachevskii, Aleksandr Ivanovich | Capt | HSU | 29 GIAP | 15 & 7 | 420/76 | |
| Goregryad, Leonid Ivanovich | Lt Col | HSU | 22 GIAD | 15 & 6 | 132/53 | |
| Grachyov, Ivan Petrovich | Maj | HSU | 28/69 GIAP | 18 & 8 | 203/94 | (7 & 4 in P-39, 1 <i>tarans</i>) |
| Grafim, Isif Ignat'evich | Sr Lt | | 104 GIAP | 19 | 209/7 | (some in Yak-9) |
| Gromov, Georgii Vasil'evich | Lt Col | HSU | 20 GIAP/515 IAP | 18 & 11 | 400+/7 | |
| Guchyok, Pyotr Iosifovich | Sr Lt | HSU | 100 GIAP | 18 & 3 | 209/56 | (4 <i>tarans</i> , 32 including 2 <i>tarans</i> in P-39) |
| Gulaev, Nikolai Dmitrievich | Maj | 2 x HSU | 129 GIAP | 57 & 3 | 248/69 | |
| Gul'yayev, Grigori Kapitonovich | Lt | | 84 GIAP | 16 & 5 | | |
| Gusarov, Nikolai Mikhailovich | Maj | | 486 IAP | 15 & 14 | 432/69 | (some in Hurricane) |
| Ibatullin, Khasan Mingeevich | Lt Col | | 436 IAP/30 GIAP | 15 | 456/7 | (maybe 12 in P-40 & P-39) |
| Istchuk, Aleksandr Grigor'evich | Capt | | 4 IAP | 12+ | | (all in MiG-3 & Hurricane) |
| Iskrin, Nikolai Mikhailovich | Sr Lt | HSU | 16 GIAP | 16 & 1 | 297/80 | (6 in P-39) |
| Ivanov, Stepan Gavrilovich | Maj | HSU | 148 GIAP | 22 & 9 | 463/7 | |
| Ivanov, Viktor Pavlovich | Capt | HSU | 768 IAP/148 GIAP | 20 & 4 | 750/50 | |
| Ivashko, Aleksandr R | Sr Lt | | 16 GIAP | 14 | | 16/7/44 |
| Kabarov, Igor Aleksandrovich | Capt | HSU | 3 GIAP-KBF | 11 & 18 | 476/7 | (5 or 6 with Hurricane) |
| Kalamin, Dmitrii Aleksandrovich | Sr Lt | | 213 GIAP | 13 & 3 | 147/42 | |
| Kamazin, Pavel Mikhailovich | Capt | 2 x HSU | 66/101 GIAP | 35 & 13 | 200/70 | (at least 23 & 6 in P-39) |
| Karasyov, Aleksandr Nikitovich | Sr Lt | HSU | 9 GIAP | 30 & 11 | 380/112 | (14 & 9 in Yak-1, 7 kills in Korean War) |
| Karlof, Valentin Andreevich | Sr Lt | HSU | 129 GIAP | 18 & 4 | 172/44 | |
| Karmin, Aleksandr Leon'tevich | Capt | HSU | 129 GIAP | 19 & 14 | 221/31 | |
| Karpov, Aleksandr Dmitrievich | Lt | | 30 RAP-CHF | 5 & 2 | 251/7 | (1 <i>tarans</i>) |
| Karpov, Mikhail | Jr Lt | | 16 GIAP | 9 | | (4 torpedo boats sunk) |
| Kharlamov, M I | | | 255 IAP-SF | 7 | | |
| Khichystov, Aleksei Stepanovich | Capt | HSU | 20 GIAP | 7 & 24 | 355/7 | (3 <i>tarans</i> with P-40) |
| Kirsanov, Pyotr Semyonovich | Maj | | 28 GIAP | 8 & 6 | | |
| Kislyakov, Anatolii Vasil'evich | Capt | HSU | 28 GIAP | 15 & 1 balloon | 352/7 | (most in P-39) |
| Klimov, Pavel Dmitrievich | Jr Lt | HSU | 2 GIAP-SF | 11 & 16 | 306/33 | (some in Hurricane, 4 in P-40) |
| Klubov, Aleksandr Fyodorovich | Capt | 2 x HSU | 16 GIAP | 31 & 19 | 457/95 | (150 missions & 4 kills in I-153) |
| Kochetov, Aleksandr Vasil'evich | Capt | HSU | 629 IAP | 34 & 8 | 450/7 | (some with P-40) |
| Kolomiets, Pyotr Leon'tevich | Capt | HSU | 2 GIAP-SF | 18 | 400/7 | |
| Kolyadin, Viktor Stepanovich | Sr Lt | HSU | 68 GIAP | 21 | 335/7 | (350+ sorties as bomber pilot) |
| Kornel'ov, Mikhail Sergeevich | Maj | HSU | 104 GIAP | 32 & 7 | 321/75 | |
| Korolyov, Ivan Georgievich | Lt Col | HSU | 9 GIAP | 18 & 11 | 500+/7 | (some in other types) |

| | | | | | | |
|-----------------------------------|--------|---------|-------------|--------------|---------|---------------------------------|
| Korolyov, Vasilii Ivanovich | Maj | HSU | 20 GIAP | 11 | 388/? | (some in P-40) |
| Korshunov, Konstantin Ivanovich | Capt | HSU | 29 GIAP | 15 & 3 | 508/91 | |
| Kotkov, Nikolai Stepanovich | Snr Lt | HSU | 55 GIAP | 17 & 3 | 253/ | 2/5/43 |
| Kovachovich, Arkadii Fyodorovich | Capt | HSU | 9 GIAP | 26 & 6 | 520/? | (13 in P-39) (some in Yak-1) |
| Koval, Dmitrii Ivanovich | Lt | HSU | 45 IAP | 10 or 13 & 3 | 150/30 | |
| Kovalenko, Aleksandr Andreevich | Lt Col | HSU | 2 GIAP-SF | 13 & 6 | 207/? | (11 in Hurricane & Yak) |
| Kozhevnikov, Anatolii Leonidovich | Maj | HSU | 212 GIAP | 27 | 300/69 | (1 <i>variant</i>) |
| Krivoshcheyev, Efim Avtonomovich | Lt | HSU | 19 GIAP | 7 & 15 | 97/30 | |
| Kriyakov, Nikolai Kuz'mich | Lt Col | HSU | 69 GIAP | 12 | 267/? | |
| Krupskii, Viktor Iosifovich | Lt Col | HSU | 780 IAP | 10 & 9 | 330/? | |
| Kryukov, Pavel Pavlovich | Lt Col | HSU | 16 GIAP | 19 & 1 | 650/? | (perhaps 10 in P-39) |
| Kudrya, Nikolai Danilovich | Jnr Lt | HSU | 45 IAP | 11 | 53/24 | |
| Kukharevko, Andrei Nikitovich | Col | HSU | 2 GIAP-SF | 15 | 300+/? | |
| Kuligin, Nikolai Atanasovich | Maj | HSU | 19 GIAP | 10 & 11 | | 22/5/44 |
| Kurzanov, Sergei Georgievich | Capt | HSU | 78 IAP-SF | 12 | 225/? | |
| Kurakhov, Pavel Stepanovich | Col | HSU | 19/20 GIAP | 13 & 28 | 367/79 | (1 in I-16) |
| Kuznetsov, Georgii Dmitrievich | Capt | HSU | 16 GIAP | 10 & 12 | 350/? | (HSU in 1991) |
| Kuznetsov, Innokenti Vasil'evich | Capt | HSU | 30 GIAP | 15 & 12 | 356/? | (some in other aircraft) |
| Kuznetsov, Nikolai Fyodorovich | Maj | HSU | 67 GIAP | 36 & 12 | 400/? | (some in other aircraft) |
| Lagutenko, Ivan Nikitovich | Maj | HSU | 68 GIAP | 17 & 3 | 288/79 | (13 & 1 in P-39) |
| Laitshew, Vladimir Aleksandrovich | Snr Lt | HSU | 67 GIAP | 17 | 232/? | (11 in P-39) |
| Lavitskii, Nikolai Efimovich | Capt | HSU | 100 GIAP | 24 & 2 | 250/100 | (all in Hurricane) |
| Lavrenkov, Vladimir Dmitrievich | Maj | 2 x HSU | 9 GIAP | 36 & 11 | 448/134 | |
| Lazarov, V G | Capt | HSU | 485 IAP | 5 | | May 1942 |
| Levin, Semyon Fedotovich | Lt | HSU | 126 IAP | 9 | | |
| Levsha, Ivan Prokof'evich | Lt | HSU | 126 IAP | 14 | | |
| Likhobabin, Ivan Dmitrievich | Maj | HSU | 72 GIAP | 30 & 9 | 321/60 | |
| Likhovid, Mikhail Stepanovich | Snr Lt | HSU | 104 GIAP | 16 & 11 | 204/44 | |
| Limanenko, Vasilii Aleksaevich | Capt | HSU | 54 GIAP | 15 & 7 | 300 | (perhaps 5 in P-39) |
| Litvinchuk, Boris Mikhailovich | Capt | HSU | 11 GIAP-ChF | 15 or 18 | 459/44 | |
| Logvinov, I I | | | 28 GIAP | 14 | | |
| Loktionov, ? ? | Snr Lt | | 485 IAP | 8 | | |
| Lozovoi, E E | Lt | | 126 IAP | 16 | | |
| Luk'yanov, Sergei Ivanovich | Lt Col | HSU | 16 GIAP | 19 & 15 | 356/? | (2 in I-16) |
| Lusto, Mikhail Vasil'evich | Snr Lt | HSU | 129 GIAP | 19 & 1 | 169/36 | (4 in P-39 after losing leg) |
| Lyubimov, Ivan Stepanovich | Lt Col | HSU | 11 GIAP-ChF | 10 | | (9 in P-39) |
| Makarenko, Nikolai Fyodorovich | Maj | HSU | 153 IAP | 10 | 320/? | |

| | | | | | | | |
|--------------------------------------|-----------|-----|-------------|----------------|---------|--|-------------------------------------|
| Marchenko, Ivan Timofeevich | Capt | HSU | 30 RAF-ChF | 71 | 417+/7 | | |
| Mariinskii, Evgenii Pakhomovich | Snr Lt | HSU | 129 GIAP | 21 | 200/60 | | |
| Maslov, V | Jnr Lt | | 101 GIAP | 5 | 115/? | | |
| Matveev, Aleksandr Andreevich | Col | | 29 GIAP | 6 & 8 | 181/12 | | (5 in P-39) |
| Mazurin, Fyodor Mikhailovich | Capt | HSU | 28 GIAP | 19 & 2 | 222/50 | | 12 <i>tarans</i> in a single sortie |
| Mikhailik, Yakov Danilovich | Snr Lt | HSU | 54 GIAP | 17 & 6 | 316/73 | | (1 <i>taran</i> , 5 in P-39) |
| Mikhalyov, Vasilii Pavlovich | Snr Lt | HSU | 213 GIAP | 22 & 4 | | | |
| Mikityanski, Geladi Davydovich | Lt | | 100 GIAP | 10 | | | |
| Miranenko, V S | Maj | | 19 GIAP | 5 & 27 | 1/2/44 | | |
| Mironov, Viktor Petrovich | Capt | HSU | 19 GIAP | 10 & 15 | 16/2/43 | | (5 & 15 in P-39) |
| Mitrokhin, Vasilii Borisovich | Maj | HSU | 191 IAP | 19 & 6 | 200/50 | | |
| Morozov, Anatoli Afanas'evich | Lt Col | HSU | 9 GIAP | 24 & 8 | | | |
| Mozutko, N T | Lt | | 438 IAP | 5 | 108/38 | | |
| Naidenko, Vasilii Mikhailovich | Maj | HSU | 126 IAP | 10 & 29 | | | |
| Narzhimskii, Vladimir Aleksandrovich | Capt | HSU | 11 GIAP-ChF | 18 & 5 | 404/40+ | | (most in P-39) |
| Nikiforov, Pyotr Pavlovich | Capt | HSU | 129 GIAP | 20 & 4 | 297/69 | | |
| Nikitin, Aleksei Ivanovich | Lt | HSU | 28 GIAP | 19 & 5 | 238/73 | | (10 in P-39) |
| Nikolaenkov, Aleksandr Ignat'evich | Snr Lt | HSU | 760 IAP | 8 & 23 | | | |
| Nikolaev, Boris Petrovich | Snr Lt | | 768 IAP | 5 | | | |
| Novichkov, Stepan Matveevich | Lt Col | HSU | 67 GIAP | 29 | 315/7 | | (19 in P-40) |
| Novikov, Aleksei Ivanovich | Capt | HSU | 17 IAP | 22 | 500/7 | | (some in other types) |
| Oboorn, Aleksandr Vasil'evich | Lt Col | HSU | 438 IAP | 13 & 13 | 283/119 | | |
| Obraztsov, Yuri | | | 100 GIAP | 10+ | | | |
| Olifirenko, Ivan K | Capt | | 16 GIAP | 14 | | | |
| Onishchenko, Ivan A | | | 16 GIAP | 13 | | | |
| Opalev, Ivan Mikhailovich | Commissar | | 485 IAP | 5+ | | | |
| Orlov, M I | Snr Lt | | 213 GIAP | 6 & 3 | 60/19 | | |
| Orlov, Pavel Ivanovich | Capt | HSU | 2 GIAP-SF | 11 | 276/24 | | |
| Patrin, Pavel Alekseevich | Maj | HSU | 255 IAP-SF | 13 | 114/18 | | |
| Pankratov, Sergei Stepanovich | Maj | HSU | 66 IAP | 19 & 9 | 264/52 | | (some in LaGG-3) |
| Panov, Aleksei Borisovich | Lt Col | HSU | 67 GIAP | 14 | 241/41 | | |
| Pasachnik, I S | Capt | | 30 GIAP | 15+ | | | |
| Pas'ko, Nikolai Fyodorovich | Snr Lt | HSU | 28 GIAP | 15 & 1 balloon | 265/32 | | |
| Patrusev, Grigori | Jnr Lt | | 100 GIAP | 10 | | | |
| Petrenko, Evgenii Vasil'evich | Capt | HSU | 20 IAP-SF | 15 & 1 | 293/75 | | (some in Yak) |
| Petrov, Mikhail Georgievich | Capt | HRF | 100 GIAP | 15 & 1 | 352/80 | | |
| Phyurov, Pyotr Andreevich | Capt | HSU | 29 GIAP | 17 & 4 | 325/76 | | |

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|-----------------------------------|---------|---------------------|---------|--|--|----------|--|--|---------------------------------------|
| Piskunov, Ivan | Sgt | 72 GIAP | 12 | | | | | | |
| Plekhanov, Ivan Efimovich | Snr Lt | 158 IAP | 11 & 2 | | | 244/34 | | | |
| Pokhlebav, Ivan Grigor'evich | Snr Lt | 101 GIAP | 20 | | | 138/42 | | | |
| Pokrovskii, Vladimir Pavlovich | Capt | 2 GIAP-SF | 12 & 6 | | | 350/60 | | | |
| Pokryshev, Pyotr Afanas'evich | Lt Col | 29 GIAP | 31 & 7 | | | 309/77 | | | |
| Pokryshkin, Aleksandr Ivanovich | Lt Col | 16 GIAP | 59 & 6 | | | 650+/156 | | | |
| Proshenko, Nikolai Ivanovich | Maj | 69 GIAP | 19 & 4 | | | 375/86 | | | |
| Rassadkin, Pyotr Alekseevich | Capt | 255 IAP-SF | 12 | | | 190/7 | | | |
| Razumov, Ivan Ivanovich | Jnr Lt | 20 GIAP | 7 | | | 198/7 | | | (52 & 4 in P-39) |
| Rechkalov, Grigori Andraevich | Capt | 16 GIAP | 56 & 6 | | | 450/122 | | | |
| Rents, Mikhail Petrovich | Maj | 30 GIAP | 20 & 5 | | | 261/63 | | | |
| Repnikov, Nikolai Fyodorovich | Snr Lt | 152 IAP | 5 | | | 51/7 | | | (1 tarav) |
| Ridnyi, Stepan Grigor'evich | Snr Lt | 126 IAP | 10 & 11 | | | 100/60 | | | (5 in P-40C) |
| Rumm, Aleksandr | Capt | 104 GIAP | 8 & 1 | | | | | | July 1944 |
| Safonov, Boris Feoktistovich | Lt Col | 2 GIAP-SF | 20 & 6 | | | 324/34 | | | 31/5/42 |
| Sakharov, Pavel Ivanovich | Capt | 78 IAP-SF/16 GIAP | 9 | | | 157/18 | | | |
| Savin, Ivan | | 16 GIAP | 6+ | | | | | | |
| Semenishin, Vladimir Grigor'evich | Lt Col | 104 GIAP | 23 & 13 | | | 300/7 | | | (some in F-16) |
| Sergov, Aleks: Ivanovich | Maj | 213 GIAP | 17 & 17 | | | 500/7 | | | |
| Sgibnev, Pyotr Georgievich | Maj | 78 IAP-SF/2 GIAP-SF | 19 | | | 319/38 | | | (16 in Hurricane) |
| Sharenko, Vasilii Denisovich | Maj | 100 GIAP | 16 & 4 | | | 300/70 | | | |
| Shcherbakov, Viktor Ivanovich | Snr Lt | 11 GIAP-ChF | 11 & 7 | | | 359/35 | | | (some in P-40, 3 kills in Korean War) |
| Shvel'gov, Pavel Fyodorovich | Capt | 67 GIAP | 17 & 2 | | | 258/78 | | | (some in other types) |
| Shikunov, Fyodor Ivanovich | Lt | 69 GIAP | 25 | | | | | | (majority in Yak) |
| Shipov, Aleksandr Pavlovich | Capt | 20 IAP-SF | 11 | | | 68/21 | | | |
| Shishkin, Vasilii Ivanovich | Maj | 55 GIAP | 15 & 16 | | | 520/78 | | | |
| Siroiti, Vyacheslav Fyodorovich | Maj | 17 IAP | 26 | | | 300/7 | | | |
| Smirnov, Aleksandr Ivanovich | Capt | 126 IAP | 16 & 14 | | | 426/107 | | | |
| Smirnov, Aleksei Samyonovich | Maj | 28 GIAP | 34 & 1 | | | 457/7 | | | (4 in F-153) |
| Smirnov, Viktor Petrovich | Snr Sgt | 628 IAP | 6 | | | 129/37 | | | |
| Snesaryov, Vladimir Semyonovich | Capt | 11 GIAP-ChF | 16 & 8 | | | 314/40 | | | (some in LaGG-3) |
| Sobolev, Nikolai Grigor'evich | Lt Col | 21 GIAP | 17+ | | | 193/65 | | | |
| Sokolov, V V | Maj | 438 IAP | 12 | | | 129/34 | | | 31/5/44 |
| Sonov, Ivan Konstantinovich | Capt | 86 GIAP | 24 & 4 | | | 388/71 | | | (166 missions in U-2 bomber) |
| Sopin, A I | Jnr Lt | 438 IAP | 5 | | | 122/32 | | | |
| Sorokin, Zakhar Artam'ovich | Capt | 2 GIAP-SF | 18 | | | | | | (16 in P-39) |
| Starichkov, Nikolai Alekseevich | Capt | 16 GIAP | 18 & 1 | | | 489/88 | | | |

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|--|--------|-----|-------------|---------|----------|------------------------|
| Starikov, Dmitrii Aleksandrovich | Snr Lt | HSU | 11 GIAP-Chf | 21 & 6 | 479/51 | (9 in Yak) |
| Strel'nikov, Vasilii Poikarpovich | Capt | HSU | 78 IAP-SF | 6 | 150/14 | |
| Stroikov, Nikolai Vasil'evich | Snr Lt | HSU | 213 GIAP | 14 & 21 | 245/66 | |
| Sukhoy, Konstantin Vasil'evich | Snr Lt | HSU | 16 GIAP | 22 | 350/57 | (3 in I-153 & I-18) |
| Sviranenko, Ivan Lukich | Capt | HSU | 100 GIAP | 10 & 6 | | |
| Svitsunov, Anatolii Ivanovich | Capt | HSU | 213 GIAP | 14 & 21 | 274/68 | |
| Tabachenko, Pyotr | Lt | | 16 GIAP | 6 & 2 | | |
| Taranenko, Ivan Andreevich | Lt Col | HSU | 104 GIAP | 15 & 4 | 265/50 | (4 & 4 in P-39) |
| Tarasov, Aleksei Kondrat'evich | Capt | HSU | 20 IAP-SF | 10 | 213/48 | (some in Yak) |
| Tarasov, Ivan | | | 9 GIAP | 19 | | |
| Tashchiev, Suren | Capt | | 11 GIAP-Chf | 11 | 400/7 | 25/9/43 |
| Torbeyev, Aleksandr | Snr Lt | | 16 GIAP | 9 | | |
| Trofimov, Nikolai Leont'evich | Capt | HSU | 16 GIAP | 15 & 11 | 341/72 | |
| Trod, Andrei Ivanovich | Lt | HSU | 16 GIAP | 24 & 1 | 600/71+ | |
| Tsvetkov, Veniamin P | Capt | | 16 GIAP | 14 | | March 1945 |
| Tushiev, Ivan Timofeevich | Capt | HSU | 191 IAP | 15 & 1 | 534/45 | |
| Tvelanov, Mikhail Stepanovich | Capt | HSU | 9 GIAP | 18 & 28 | 420/130 | (some in Yak-1 & La-7) |
| Uglanski, Pyotr | Snr Lt | | 28 GIAP | 14 | | |
| Vedeneev, Valentin Ivanovich | Snr Lt | HSU | 158 IAP | 24 | 182/52 | |
| Vil'yamsou, Aleksandr Aleksandrovich | Capt | HSU | 104 GIAP | 18 & 6 | 382/66 | (some in I-16 & Yak-1) |
| Vinogradov, Aleksei Aleksandrovich | Jnr Lt | | 30 GIAP | 10 | 115/19 | |
| Vishnavitskii, Konstantin Grigor'evich | Maj | HSU | 104 GIAP | 20 & 15 | 200/? | (some in I-16 & Yak-1) |
| Volkov, A. A. | Lt | | 485 IAP | 12 | | 30/7/44 |
| Zadiraka, Leontii V | Lt | | 129 GIAP | 5 & 1 | 54/37 | |
| Zaitsev, Aleksandr Petrovich | Maj | | 19 GIAP | 14 & 21 | 200 | 30/5/42 |
| Zakavuk, Aleksei Semyonovich | Capt | | 104 GIAP | 16 | 594/90 | |
| Zavarukhin, Pavel Filippovich | Lt Col | | 72 GIAP | 13 & 4 | 480/? | |
| Zelarov, Nikolai Andrianovich | Capt | HSU | 29 GIAP | 24 & 10 | 500/ | 29/6/44 |
| Zharikov, Ivan Mikhailovich | Capt | | 20 GIAP | 9 & 16 | 300/? | (some in P-40) |
| Zherdev, Viktor Ivanovich | Capt | | 16 GIAP | 12 | | 13/1/45 |
| Zhuchenko, Ivan Yakovlevich | Snr Lt | | 20 GIAP | 11 | | |
| Zhorov, Vasilii Mikhailovich | Snr Lt | HSU | 72 GIAP | 22 | 180/38 | |
| Zmir, Georgii Vasil'evich | Col | HSU | 485 IAP | 16 & 20 | 249/69 | |
| Zyuzin, Dmitrii Vasil'evich | Snr Lt | HSU | 11 GIAP-Chf | 15 | 535+/51+ | |

1

Hurricane Mk IIB Z5252 of Gen A A Kuznetsov, Northern Fleet Air Flotilla, Vaenga, September 1941

This was the first Hurricane to be flown by a Soviet pilot (namely Maj Gen A A Kuznetsov, commander of the Northern Fleet Air Force, on 25 September 1941) during No 151 Wing's transition of its aircraft into VVS service in the autumn of 1941. Built by Gloster, Z5252 had been issued new to No 81 Sqn just a matter of weeks prior to its shipment to the USSR aboard the aircraft carrier HMS *Argus*. All Hurricanes shipped to Murmansk in late 1941 remained in their factory-applied Dark Green and Dark Earth camouflage, their new owners barely having the time to paint out their RAF roundels with local Russian paint and adorn the fuselage and wing undersides with Soviet stars. The Hurricanes were then sent aloft to fight the Luftwaffe.

2

Hurricane Mk IIB BN233 of Maj Boris Safonov, 78 IAP-SF, Vaenga, early 1942

Ace and HSU winner Maj Boris Safonov was the second Russian pilot to fly the Hurricane, and he was assigned BN233 as his mount whilst leading 78 IAP-SF in early 1942. This aircraft had been shipped to the USSR in late 1941.

3

Hurricane Mk IIB BG910 of Maj Viktor Krupskii or Lt Aleksandr Nikolaenkov, 760 IAP, Boyarskaya airfield, Northern Karelia, early 1942

Camouflaged in Dark Green and Ocean Grey, which became the standard colours for RAF fighters from mid 1941 until war's end, BG910 was also shipped to the USSR in late 1941. The pilot of this aircraft is undetermined, but it could have been either Viktor Krupskii or Aleksandr Nikolaenkov – both achieved high scores and the HSU. Rearmed with Soviet machine guns and cannon, this aircraft suffered a forced landing during the summer of 1942.

4

Hurricane Mk IIB (serial unknown) of Capt Vasilii Adonkin, 78 IAP-SF, Vaenga, early 1943

This Hurricane featured white borders around the national insignia – this addition to the national marking was informally introduced in early 1942. The small stars outlined in white signified Adonkin's individual victories, and those without were group kills. Like BG910, this aircraft has retained its RAF fighter band just forward of the tail surfaces.

5

Hurricane Mk IIB BM959 of Lt Ivan Babanin, 609 IAP, near Tiiksjärvi, April 1942

Sent to the USSR on 10 December 1941, this aircraft was forced down near the Finnish airfield at Tiiksjärvi, in East Karelia, on 6 April 1942. Its pilot, Jnr Lt Ivan Babanin, was captured. The slogan above the fuselage star proclaimed *For the Fatherland*, whilst on the starboard side an identically placed inscription read *For Stalin*.

6

Hurricane Mk IIB (serial unknown) of 1 GIAP, Kalinin Front, spring 1942

The Soviet insignia had not yet been standardised when this aircraft entered VVS service, and it variously appeared with no outline, an outline in black or occasionally in white. Spinners of Soviet aircraft were usually painted black, unless they were coloured for unit identification. Also note the fin tip painted with a unit colour. This particular aircraft was built in Canada.

7

Hurricane Mk IIB (serial and regiment unknown), Kalinin Front, early 1942

During the first two winters of the war, VVS units often gave their aircraft a coat of temporary white paint, although the poor quality of the latter of resulted in a worn appearance. Note the spinner and tip of the fin painted, or perhaps left, in green.

8

Hurricane Mk IIB (serial unknown) of 22 ZAP, Ivanovo, 1942

Some Hurricanes, such as this aircraft, were sent to the Soviet Union from the Middle East. These machines were typically finished in RAF desert camouflage, and once in the USSR the Mid-stone areas of their camouflage were replaced by ubiquitous Russian green, as seen here. Hurricanes flown by aces Amet Khan and Sergei Dolgushin may have appeared similar to this aircraft.

9

Hurricane Mk IIA Z2899 of a regiment within 6 PVO Fighter Corps, Moscow Region, 1942

Some second-hand Hurricanes were even supplied to the USSR in their nightfighter black, and they were usually left in this scheme by their new owners. If such an aircraft was sent to a regiment of the Air Defense Corps protecting Moscow, this would be appropriate, since these units often flew night interception missions. Z2899 had previously served with Nos 238 and 402 Sqs prior to being sent to the Soviet Union in late 1941.

10

Tomahawk II (serial unknown) of Lt Aleksei Khlobystov, 20 GIAP, Murmashi, Northern Karelia, April 1942

Bearing a temporary winter scheme, this aircraft was used by ace Aleksei Khlobystov to famously score two ramming kills in a single mission on 8 April 1942. Note that the white paint has not been applied to areas bearing the side number, and elsewhere it has begun to badly weather, clearly revealing the original RAF camouflage underneath.

11

Kittyhawk I (serial unknown) of Lt Georgii Gromov, 20 GIAP, Murmashi, early 1943

The four small red stars in this aircraft's scoreboard represent individual victories, whilst the remaining eleven in outline

form only denote shared kills. Having switched to the Yak -9 later in the war, Gromov duly raised his tally to 18 individual and 11 shared victories, earning him the HSU.

12

Kittyhawk I (serial unknown) of Lt Col Aleksandr Matveyev, Commander of 29 GIAP, Plekhanovo airfield, Leningrad Front, autumn 1942

Painted in standard RAF Dark Green and Dark Earth camouflage, this Kittyhawk I was amongst the first of its type supplied to the USSR by the British. Flown by ace Aleksandr Matveyev, it provided the backdrop for a series of photos featuring aces from 28 GIAP taken at Plekhanovo airfield in the early autumn of 1942. Its scoreboard features yellow stars for shared victories and red ones for individual kills.

13

Kittyhawk I (serial unknown) of Capt Pyotr Pokryshev, 29 GIAP, Plekhanovo airfield, Leningrad Front, autumn 1942

Supplied to 29 GIAP at the same time as the aircraft seen in the previous profile, this aircraft also boasted red and yellow victory stars, as well as a particularly decorative style of side number. Pyotr Pokryshev would end the war with 31 individual and 7 shared kills.

14

P-40E (serial unknown) re-engined with Klimov M-105P, 196 IAP, Leningrad Front, spring 1942

This aircraft was one of around 40 P-40E/Kittyhawk Is that had their Allison engines replaced by Klimov M-105Ps in late 1942 due to a chronic shortage of spare parts for the American powerplant. Note that the fighter's side number has been reapplied in red following its respraying in winter white.

15

P-40K (serial unknown) of Nikolai Kuznetsov, 436 IAP, Lake Seliger, Northwestern Front, December 1942

High-scoring lend-lease ace Nikolai Kuznetsov was issued with one of the first P-40Ks to reach the USSR. This aircraft was quickly adorned with his victory tally, and in this instance the white stars represented Kuznetsov's individual successes, whilst his shared scores were not represented at all. There was no consistency between regiments in how victory markings were displayed.

16

P-40M (serial unknown) of 191 IAP, Leningrad Front, late 1943

In yet another variation in markings, this P-40M featured a white rudder, rather than its entire vertical tail surfaces being painted white as was usual for aircraft serving on the Leningrad Front at this time. The front section of its spinner was painted red, perhaps as a unit marking, and the aircraft also boasted a sharkmouth marking – a not uncommon embellishment on Soviet aircraft from late 1943 until VE-Day.

17

P-40M (serial and regiment unknown), Northern Fleet, 1944

This P-40M displays a number of interesting markings. It is unusual to see aircraft this late in the war displaying the red

star with a black outline (both on its fuselage and beneath its wings), and while it was common to paint the fin tip as a unit identification, this aircraft also features two narrow stripes immediately below this marking. Finally, the three-digit side number applied to the fuselage was also unusual.

18

P-40N (serial unknown) of 2 GIAP-SF, Northern Fleet, 1943

The anchor on the tail of this aircraft clearly proclaims that it was assigned to a naval regiment. The upside down ace of spades was presumably an individual marking, although its significance remains unknown. The partially obscured inscription beneath the cockpit read *For Safonov*, which commemorated the memory of the dead twice HSU-winning ace who flew with this regiment.

19

Airacobra I (serial unknown) of Maj Aleksandr Zaitsev, 19 GIAP, Shongui, May 1942

Camouflaged in Dark Green and Ocean Grey, the first Airacobra Is to arrive in the USSR flew in their original British colours. 19 GIAP favoured an ornamental style of numbering on the tail, while photos reveal that the regiment marked its aircraft up with plain red stars, as well as stars with black or white outlines, seemingly simultaneously!

20

P-39Q (serial unknown) of Capt Grigori Dmitriyuk, 19 GIAP, Shongui, autumn 1943

When Grigori Dmitriyuk first joined 19 GIAP in May 1942 he flew one of the handful of Kittyhawk Is assigned to the regiment. He eventually switched to this P-39Q in the summer of 1943, and scored a good number of his 18 kills with it during the course of 206 combat sorties – Dmitriyuk was awarded the HSU on 2 November 1944 for his success in combat. Aside from Dmitriyuk's kill tally, this aircraft also features a Guards badge below the ace's personal insignia, but lacks a side number.

21

P-39Q (serial unknown) of Snr Lt Nikolai Didenko, 2 GIAP-SF, Vaenga-2 airfield, June 1944

Nikolai Didenko joined 2 GIAP-SF in October 1941, and by the end of the war he had scored 14 victories in 378 sorties. Awarded the HSU on 5 November 1944, he scored many of his kills in this particular *Kobra*.

22

P-39Q (serial unknown) of Capt N I Tsisarenko, 102 GIAP-PVO, Leningrad Front, June 1944

This aircraft has the vertical tail and spinner painted white, as was standard for Leningrad area fighters in 1944. It also features a Guards badge on the cabin door. Tsisarenko is not known to have been an ace, although he did shoot down a Finnish Blenheim on 17 June 1944.

23

P-39N (serial unknown) of Maj Sultan Amet Khan, 9 GIAP, Melitopol, September 1943

While some artists depict this aircraft with a red spinner,

pilots' memoirs from the period clearly state that 8 GIAP used different colours to distinguish the regiment's squadrons, and Amet Khan's 3rd Sqn used Yellow.

24

P-39Q-15 44-2844 of Lt Dmitrii Kalinin, 508 IAP, Turbya airfield, Poland, August 1944

44-2844 is seen shortly after Dmitrii Kalinin had used it to claim his 11th kill. By the end of the war that ace had flown 147 sorties and scored 13 individual and 3 shared victories, all with this regiment whilst flying the P-39Q.

25

P-39N (serial unknown) of Maj Aleksandr Karmin, 129 GIAP, Jassy, May 1944

Soviet sources indicate that Aleksandr Karmin's P-39N was painted dark grey on its upper surfaces and blue underneath, using local Soviet paints. Ordinarily, lend-lease aircraft were left in their original colours, but if this airframe had been sent to a depot for a major overhaul, repainting would have been part of the process. Maj Karmin scored 19 victories, with the last of these seeing him ram a bomber on 31 May 1944 while flying this aircraft. He survived the collision, but did not recover from his injuries in time to return to combat.

26

P-39Q-15 44-2498 of Lt Col Pavel Zavarukhin, Commander of 72 GIAP, Byelorussia, summer 1944

The red spinner and fuselage band were markings distinctive to 72 GIAP within 5 GIAD. 68 GIAP of the same division used similar markings but in blue. Pavel Zavarukhin claimed 13 and 4 shared kills with 72 GIAP.

27

P-39N (serial unknown) of Snr Lt Evgenii Marinskii, 129 GIAP, Germany, 1945

The most notable features of this aircraft are its diagonal tail band and the coloured panel on the nose, which bears the fighter's individual number on it. Painted nose panels were sometimes seen on P-39s, while the tail band was a common style of unit or tactical marking. Between October 1943 and VE-Day, Evgenii Marinskii flew 200 sorties and scored 21 kills. He was awarded the HSU on 17 June 1945.

28

P-39N-0 42-9004 of Col Aleksandr Pokryshkin, 9 GIAD, Germany, 1945

This profile corrects an error in *Aircraft of the Aces 36*, and virtually every other artistic representation of this aircraft produced over the decades. Memoirs reveal that Pokryshkin never painted victory markings on his aircraft, saying that there was no benefit in giving the German pilots advance warning of who was a novice and who was an experienced killer. All the famous propaganda photos of Pokryshkin taken in 1945 show him posing by the nose of Rechkalov's P-39.

29

P-39Q-15 44-2547 of Maj Grigorii A Rechkalov, 16 GIAP, Germany, 1945

Ranking P-39 ace Grigorii Rechkalov was a supreme egotist in a collective system. Not only did he mark his victories on the

nose of his P-39, he also painted his own initials RGA in Cyrillic on his aircraft instead of a regular aircraft number, which explains why no photograph ever shows Pokryshkin and the tail section of this heavily starred P-39.

30

Spitfire Mk VB EP210 of 57 GIAP, North Caucasus Front, April 1943

Placement of the Guards badge on the vertical tail fin of this aircraft is unique, and use of a three-digit number on the fuselage was an exception, but not rare. Spitfire Mk Vs flew only briefly with 57 GIAP and accomplished very little.

31

Spitfire Mk IXC (serial unknown) of 26 GIAP, Leningrad, 1944

The white tail had become a standard marking for all aircraft (bar ground attack types) on the Karelian Front and the Leningrad PVO Zone by 1944. Note the more traditional placement of the Guards insignia.

32

Spitfire Mk IXE (serial unknown) of Lt Col Vasillii Matsievich, 26 GIAP, Leningrad, spring 1945

For some reason many of the Spitfires assigned to 26 GIAP were repainted with Russian green and blue paint in 1945. Although often used as a unit insignia, in this instance the white arrow signifies the regiment CO's aircraft.

33

Spitfire Mk IXC (serial unknown) of Snr Lt Dmitrii Kalinin, 19 IAP, Vaskovo airfield, near Archangel, 1948

VVS PVO regiments continued to fly Spitfire Mk IXs for about three years post-war. Note that both the spinner and tail fin have been painted white.

34

P-47D-27 42-27023 of 255 IAP-SF, Northern Fleet, spring 1945

255 IAP-SF was one of the few Soviet units to make even brief operational use of the Thunderbolt, flying them primarily in support of operations aimed at driving the Germans out of northern Finland and Norway in the final months of the war.

35

P-47D-22 (serial unknown) of 255 IAP-SF, Northern Fleet, October 1944

The camouflage scheme applied to this aircraft, which is backed up by photographic evidence, confirms that a handful of lend-lease aircraft were repainted in then-standard VVS dark and light greys, with Russian light blue undersides.

36

A-20G-1 (serial unknown) of 27 API-DD, Long Range Aviation, spring 1944

This regiment was formed to conduct night intruder duties with specially modified A-20G-1s that featured wing-mounted radar antennae. These aircraft were also fitted with two additional cannons and two heavy machine guns in a swivel pack for ground strafing. The white arrow on the nose was a regimental marking.

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