

Hurricanes in Russia by David Gray

The Hawker Hurricane played a real—if sometimes overlooked—role in the fighting in Russia during World War II, mainly in the early years of the German invasion.

How Hurricanes got to Russia



After Germany launched Operation Barbarossa in June 1941, the USSR urgently needed modern fighters. Britain responded quickly, sending Hurricanes under Lend-Lease and earlier emergency aid. In total, the Soviets received about **3,000 Hurricanes**, making it one of the most numerous Western aircraft used by the Red Air Force. Some were delivered by Arctic convoys to Murmansk and

Arkhangelsk; others via Iran and the Middle East and some were flown directly by RAF crews who then trained Soviet pilots.

Combat use on the Eastern Front

Hurricanes entered combat in late 1941, at a time when the Red Air Force had suffered devastating losses. The aircraft was rugged and reliable in harsh conditions; a stable gun platform; good at low- to medium-altitude fighting and easier for inexperienced pilots to fly than some Soviet designs.

However, it was slower and less manoeuvrable than German Bf 109F/G, had an inferior rate of climb and its rifle-calibre .303 machine guns were often ineffective. Because of these limits, Soviet pilots generally avoided classic dogfights with Bf 109s and instead used Hurricanes for point defence (airfield and city protection), bomber escort, and ground attack, especially later in the war.

Soviet modifications

The Soviets didn't use Hurricanes exactly as Britain intended. Common changes included:

- Replacing .303 machine guns with 12.7 mm UB machine guns or 20 mm ShVAK cannons.
- Adding RS-82 rockets or bombs for ground attack.
- Removing equipment unnecessary for Eastern Front operations.

These modifications made the Hurricane more effective in Soviet-style combat.

British pilots in Russia

In 1941, RAF No. 151 Wing operated Hurricanes from bases near Murmansk. Their mission was to defend the port, train Soviet pilots and demonstrate tactics. This was one of the rare moments where British pilots directly flew combat missions from Soviet soil.

Soviet opinion of the Hurricane

Soviet pilots had mixed feelings, they appreciated its durability and stability but generally regarded it as obsolete by 1942, especially compared to newer Soviet aircraft like the Yak-1, Yak-7, and La-5.

As better fighters became available, Hurricanes were increasingly relegated to secondary roles or withdrawn.

Overall significance



The Hurricane was never the best fighter on the Eastern Front, but it arrived when the USSR desperately needed aircraft. In that sense, it helped bridge the critical gap of 1941–42 and contributed meaningfully to Soviet air defence during the war's darkest period.

Soviet units that flew Hurricanes

Hurricanes were issued widely, especially in 1941–42, from air defence, or PVO (Protivo-Vozdushnaya Oborona), to units fighting at the front.

Notable units include:

- 72nd SAP (Mixed Aviation Regiment) – among the first to receive Hurricanes.
- 78th IAP (Fighter Aviation Regiment) – defended Murmansk.
- 760th IAP – Arctic air defence.
- 191st IAP.
- 195th IAP.
- Numerous PVO regiments around Moscow, Leningrad, and northern ports.

By late 1942, Hurricanes were rarely used in front-line air superiority roles but were common in rear-area defence, convoy escort, and ground attack.

RAF No. 151 Wing in Russia (1941)

One of the most unusual episodes of WWII air warfare was the arrival of No. 151 Wing, RAF, which arrived at Vaenga (near Murmansk) in September 1941. This unit flew Hurricane Mk IIBs on missions which included defending Arctic ports from Luftwaffe raids, training Soviet pilots and ground crews and introducing RAF interception tactics. This unit flew hundreds of sorties and claimed several German aircraft destroyed (mainly Ju 88 bombers and Bf 109s). All while operating in brutal Arctic conditions. After about two months they handed over their Hurricanes to the Soviets and all RAF personnel withdrew. This was one of the only times British fighters flew combat missions from Soviet soil.

Soviet pilot opinions & firsthand accounts



Soviet pilots liked the Hurricane's extremely stable firing platform. It had forgiving handling, especially for less-experienced pilots and its strong structure could absorb a lot of damage and still return. They also appreciated the good visibility from the cockpit compared to early Soviet fighters.

"The Hurricane forgave mistakes that would have killed you in a MiG." — Soviet pilot recollection.

What Soviet pilots disliked was the Hurricane's sluggish acceleration, poor climb rate, inferior performance above 4,000 meters and its weak original armament.

Many Soviet pilots considered it:

"Reliable, but already old."

Armament problems and Soviet modifications

The British configuration of armament consisted of 8 or 12 × .303 Browning machine guns. This was adequate in 1940, but poor compared to more modern fighters by 1942. The Red Air Force therefore aggressively modified Hurricanes, replacing Brownings with 2 × 20 mm ShVAK cannons or 2 × 12.7 mm UB machine guns. They added RS-82 rockets and bomb racks (up to 250 kg total). They removed radios and other navigational gear deemed unnecessary in order to try to make the Hurricane lighter and enhance performance. These changes greatly improved lethality, especially for ground attack.

Combat performance vs German fighters



Against Messerschmitt **Bf 109E** (*left*), the Hurricane was roughly comparable at low altitude, able to turn tighter, but was still inferior in climb rate and speed.

Against **Bf 109F/G** the Hurricane was clearly outclassed. The German pilots dictated engagements and Soviet pilots flying Hurricanes avoided manoeuvres requiring the aircraft to climb fast. For these reasons the Soviet tactics were to dogfight only at low level, use head-on attacks, rely on numbers and discipline and avoid prolonged dogfights.

Comparison with Soviet fighters

Hurricane vs Yak-1



Yak-1: (*left*)

- Faster
- Better climb
- Better manoeuvrability

Hurricane:

- More stable
- More durable
- Easier for new pilots

Yak-1 preferred by Soviet pilots for air combat.

Hurricane vs LaGG-3



LaGG-3: *(left)*

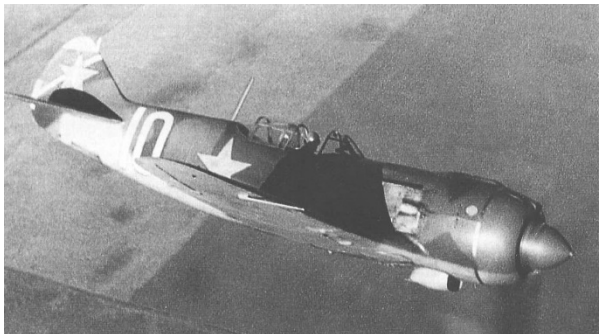
- Faster at altitude
- Heavily built but underpowered

Hurricane:

- Better handling
- More reliable
- Better cockpit ergonomics

Mixed opinions; Hurricane often preferred early on.

Hurricane vs La-5 (from 1942)



La-5: *(left)*

- Vastly superior in speed and climb
- Excellent low-altitude performance

Hurricane:

- Obsolete by comparison

Hurricanes were quickly moved out of front-line units once La-5s arrived.

Ground-attack role

By 1942–43, Hurricanes were often used as fighter-bombers, using rockets against vehicles and troop concentrations, bombing supply columns and airfields and escorting Il-2 Sturmoviks. They were not as effective as the Sturmovik but filled gaps when nothing else was available.

Overall assessment

The Hurricane in Soviet service was not a top-tier fighter on the Eastern Front. However, to begin with it was crucial during the emergency period of 1941. Reliable, tough, and adaptable, it was a valuable stopgap until Soviet industry recovered.

Soviet verdict (in hindsight)

“It was not a machine for victory—but it helped us survive.”

Hawker Hurricanes in Soviet Service

Kill / loss statistics (what we can realistically say)

Precise Soviet kill/loss numbers are difficult because Soviet confirmation standards differed from the RAF and Luftwaffe, records were often incomplete in 1941–42 and Hurricanes were mixed into regiments flying multiple aircraft types.

What historians generally agree on is that Hurricanes suffered severely against Bf 109F/G units. Losses were highest in 1941–early 1942 and performance improved after Soviet armament upgrades, tactical adaptation and a shift away from pure fighter combat.



Typical causes of losses were caused by being bounced from above, vertical combat (climbing) against Bf 109s, flak during ground-attack missions and engine power loss in extreme cold.

By mid-1942:

- Hurricanes scored occasional successes, mainly against:
 - Bombers (Ju 88, He 111)
 - Recon aircraft
 - Older fighters
- They were no longer decisive in air superiority battles

Statistically inferior, but operationally valuable when alternatives were scarce.

Soviet camouflage & markings (distinctive and unusual)

Early delivery appearance

Most Hurricanes arrived in standard RAF camouflage, Dark Green / Dark Earth and Sky or black/white undersides. They carried RAF serials and roundels which were hastily overpainted.

Soviet modifications

Common features included red stars painted directly over RAF markings; RAF serial numbers often left visible or partially erased; British stencils sometimes retained; Cyrillic unit numbers added later.

Repaints

As time went on:

- Hurricanes were repainted in Soviet colours, such as:
 - AMT-4 Green
 - AMT-6 Black
 - AMT-7 Blue undersides
- Winter:
 - Temporary white distemper applied
 - Often uneven and worn



Soviet Hurricanes often looked patchwork and rough, reflecting frontline urgency.

Soviet aces who flew Hurricanes

While no top-tier Soviet ace was *defined* by the Hurricane, several notable pilots flew them during critical periods.



Boris Safonov (Arctic Front). One of the most famous Soviet aces flew Hurricanes early in the war and scored victories mainly against bombers. At the time he praised the Hurricane's stability and gunnery platform. Safonov later transitioned to Curtis P-40s and P-39 Airacobras (*left*).

Other pilots

- Many future Yak and La-5 aces gained early combat experience on Hurricanes
- Hurricanes were often used by:
 - Younger pilots.
 - Reconstituted regiments.
 - PVO defence units.

The Hurricane was a training ground under fire for a generation of Soviet fighter pilots.

Hurricane vs P-39 Airacobra (the real comparison)

This comparison explains *why the Hurricane faded while the P-39 thrived*.

Speed & climb

Aircraft	Verdict
Hurricane	Slow climb, modest speed
P-39	Faster at low altitude, better acceleration

P-39 clearly superior.

Armament

Hurricane (RAF)	Hurricane (Soviet-mod)	P-39
.303 MGs	12.7 mm / 20 mm	37 mm cannon + MGs

P-39 overwhelmingly superior, especially for Soviet tactics.

Altitude performance

- Hurricane: best below 4,000m.
- P-39: poor high-altitude, excellent low-altitude.

Eastern Front combat favoured the P-39's strengths.

Pilot opinion



Soviet pilots generally said the Hurricane was *“Safe, honest, but weak.”* The P-39 Airacobra (left), was *“A killer.”*

The P-39 soon became one of the most successful fighters in Soviet service, flown by many top aces (Pokryshkin, Gulaev, Rechkalov). Once P-39s arrived in numbers, Hurricanes were sidelined.

The Airacobra (P-39), was not used extensively in the European theatre and was a mixed bag: poor at high altitudes due to its removed turbocharger, making it disliked by US/UK forces for bomber escort, but excellent at low altitudes, becoming a formidable ground-attack and low-level fighter in Soviet hands, where its heavy nose cannon and good handling (after modifications) led to the **highest kill count for any US fighter**, proving it was "good" in the right role and with the right tactics.

Why it struggled (US/UK)

- **Altitude Performance:** The removal of its turbocharger for production made it perform poorly above 12,000-15,000 feet, useless for high-altitude escort.
- **Handling Issues:** The engine behind the cockpit made it unstable and prone to flat spins in tight turns, especially with added weight from armour and guns, earning it nicknames like "Iron Dog" in the Pacific.

- **Tactical Mismatch:** Its design was unsuited for US doctrine of high-altitude bomber escort, unlike the P-47 or P-51.

Why it succeeded (Soviet Union)

- **Low-Altitude Specialist:** The Eastern Front's low-altitude fighting suited the P-39 perfectly, making it effective in ground attack and close support.
- **Heavy Firepower:** Its nose-mounted 37mm cannon was devastating against ground targets and surprisingly effective against Axis fighters at low level.
- **Pilot Appreciation:** Soviet pilots modified them (removing wing guns for better roll) and loved their firepower and toughness, achieving massive kill numbers.

Verdict

The P-39 Airacobra wasn't a universally "good" plane, but it was a great example of how a specific aircraft can excel or fail depending on the tactical environment. It was a failure as a high-altitude interceptor but a huge success as a low-altitude fighter-bomber for the Soviets.

Final Soviet assessment of the Hurricane (retrospective)

The Hurricane was essential in 1941, reliable and adaptable, but was outclassed by 1942 and not suited for aggressive air superiority

But without it:

- Murmansk might have fallen.
- Convoys would have suffered greater losses.
- Soviet fighter recovery would have taken longer.

Best summary

The Hurricane did not win the air war in the East — but it helped keep the Soviet Air Force alive long enough to do so.

What a real Hurricane vs Bf 109 fight looked like (step by step)

Typical scenario, 1941–42

- Altitude: low to medium (1,500–3,500 m).
- Hurricanes flying pairs or fours.
- Luftwaffe Bf 109F patrol above them.

How it usually unfolded

1. German advantage
 - Bf 109s spotted Hurricanes first.

- Germans attacked from above and behind.

2. Initial bounce

- Hurricane could not climb to meet them.
- First pass was often deadly.

3. Hurricane response

- Immediate hard turn.
- Stay low.
- Try to force a horizontal fight.

4. If the Hurricane survived

- Tight turning circle could occasionally:
 - Force a head-on.
 - Make a Bf 109 overshoot.
- Soviet pilots aimed for:
 - Short, close-range bursts.
 - Engine or cockpit.

5. German disengagement

- Bf 109 climbed away vertically.
- Hurricane could not follow.

Outcome pattern - Hurricanes rarely *controlled* the fight; they could defend bombers or cities and could score kills if pilots were disciplined. They could not chase or dominate. Survival depended more on tactics than aircraft quality.

RAF vs Soviet fighter tactics — why the Hurricane struggled more in Soviet Air Force hands.

RAF doctrine (Battle of Britain)

- Controlled interceptions.
- Radar guidance.
- Formation discipline.
- Defensive fighting.

Perfect fit for the Hurricane.

Soviet doctrine (1941)

- Aggressive.
- Close escort.
- Low altitude.
- Less centralized control.
- Often under-trained pilots.

Mismatch with Hurricane's strengths

The Hurricane was best when defending and worst when forced to attack in a climb. As Soviet tactics improved, loss rates decreased. Hurricanes lasted longer — but they were still limited.

Why the USSR barely used Spitfires (and why Hurricanes stayed)

This surprises many people.



The Spitfires in Soviet service (*left*), were assigned mainly to air defence units (PVO). Their job was intercepting high-altitude enemy bombers, protecting cities, industry, and key infrastructure. Not frontline dogfighting over the battlefield. Spitfires fit PVO better because of their excellent high-altitude performance and good interception ability, but were less suited to rough frontline airfields.

Spitfire issues in Soviet service

- Short range.
- Optimised for High-altitude fighting.
- Fragile structure.
- Complex maintenance.
- Narrow landing gear (dangerous on rough fields).

Hurricane advantages

- Rugged.
- Easy to repair.
- Tolerated mud, snow, ice.
- Forgiving for pilots trained in weeks, not years.

The USSR **needed workhorses**, not racehorses.

Spitfires were mostly used for PVO high-altitude defence, in limited numbers and therefore had minimal combat impact.

Why some Soviet pilots preferred Hurricanes to early LaGG-3s

This sounds counterintuitive — but it's true.

Early LaGG-3 problems

- Severely underpowered engine.
- Heavy airframe.
- Poor climb.
- Dangerous stall behaviour.
- Nicknamed: "*Guaranteed varnished coffin.*"

Hurricane comparison

Factor	Hurricane	LaGG-3 (early)
Handling	Forgiving	Unforgiving
Visibility	Good	Poor
Reliability	High	Low
Pilot survival	Better	Worse

For new pilots, the Hurricane felt *safer*, even if it was slower.

Arctic warfare — where Hurricanes mattered most

The Hurricane's best Soviet theatre was the Far North.

Why?

- Luftwaffe flew bombers low.
- Terrain limited vertical fighting.
- Cold reduced German engine advantage.
- Mission focus - defence, not pursuit.

Results

- Convoys protected.

- Murmansk stayed open.
- RAF + Soviet cooperation succeeded.

In the Arctic, the Hurricane was close to its element.

Psychological and training impact (often overlooked)

The Hurricane did something crucial:

It bought time to allow:

- Soviet factories to be evacuated.
- Yak and La production could be ramped up.
- Pilot training was stabilised.

It saved pilots due to its:

- Stable handling.
- Damage tolerance.
- Fewer training accidents.

Many Soviet aces later said: "If I had started in a LaGG, I might not have lived to fly a Yak."

Strategic legacy — the honest verdict



The Hurricane did **NOT** win air superiority, match the Bf 109F/G or shape late-war combat.

The Hurricane **DID** hold the line in 1941, defend critical ports and cities, train pilots under fire and serve when nothing else was available.

Final, definitive summary

The Hurricane in Soviet service was:

- A **bridge aircraft**
- A **defensive fighter**
- A **survivor's machine**
- A **necessary compromise**

It was never loved. It was never feared. But it was *used, adapted, and respected*. "It was not for victory. It was for endurance."