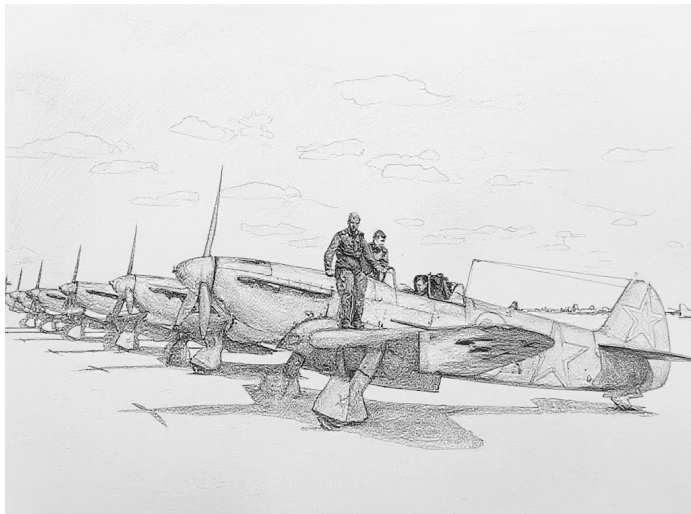


# Yakovlev Yak-9



The Yakovlev Yak-9 was a propeller-driven fighter developed during WWII and which first entered service in 1942. After WWII, later versions were supplied to many Soviet allies. The NATO reporting name for the aircraft is “Frank.”

## Versions

There were many versions of the Yak-9; these are the most relevant.

### **Yak-9**

The first Yak-9 version was developed from the Yak-7B fighter. It was armed with one 20 mm ShVAK cannon firing through the spinner and one 12.7 mm UBS machine gun in the left wing. It entered service with the Soviet VVS in 1942.

### **Yak-9T**

The Yak-9T was armed with a 37 mm NS-37 cannon in place of the 20 mm. The cockpit was moved backwards slightly to accommodate the cannon.

### **Yak-9D**

The Yak-9D is a long-ranged escort fighter derived from the original Yak-9. It had additional fuel tanks in the wings, but otherwise was very similar.

### **Yak-9M and Yak-9U**

The Yak-9M was also derived from the original Yak-9, but had the cockpit move backwards like the Yak-9T for commonality and a stronger construction, with the fuselage being skinned by plywood rather than fabric. It added a second 12.7 mm UBS machine gun in the right wing. The Yak-9U was an iteration of the Yak-9M with modifications to re-

duce defects during construction.

The Yak-9M entered service in the spring of 1944 and the Yak-9U followed before the end of WW2.

### **Yak-9P**

The Yak-9P was a post-war development of the Yak-9U with completely metal wings.

The Yak-9U entered service with the VVS in 1946. It also served with many Soviet allies, including the Albanian Air Force, Bulgarian Air Force, Chinese PLAAF, Hungarian Air Force, North Korean KPAF (from 1949), Polish Air Force and Polish Navy, and the Yugoslav Air Force.

## Armament and Stores

Most versions of the Yak-9 were armed with one 20 mm ShVAK cannon firing through the spinner and one or two 12.7 mm UBS machine guns in the wings.

Two 100 kg bombs could be carried under the wings.

## Combat

Early versions of the Yak-9 fought in WW2. The Yak-9U/-9P were also used by the North Korean KPAF and saw extensive service in the first weeks of the Korean War.

## ADCs

- Yak-9D
- Yak-9U
- Yak-9P

## Photo Credit

- Yak-9D: USAAF photographer (Public Domain)

Yak-9D										Crew: Pilot														
										Maneuver DPs: <div>LR/DR1.5</div> <div>VR1.5</div>														
Turn DPs: <div>CL1/2DT</div> <div>TT0.250.250.25</div> <div>HT0.250.250.75</div> <div>BT0.750.75—</div> <div>ET1.00—</div>																								
															Cruise Spd. CL: 3.0    Restr. Arcs: — Climb Spd.: 1.5    Blind Arcs: 30– Visibility: 5    Internal Fuel: 35 Size: –1    AtA Refuel: No Vulnerability: –1    Ejection Seat: None									
																				If speed ≥ 3.5, reduce power by 0.5.				
Power APs/DPs: ☹ <div>CL1/2DTFuel</div> <div>FT2.01.51.50.5</div> <div>HT0.50.50.50.2</div> <div>N0.00.00.00.1</div> <div>I1.01.01.00.0</div> <div>SPBR— — — —</div>																								
Speeds and Ceilings										Climb Capabilities														
Alt. Conf.		CL		1/2		DT		Dive		CL		1/2		DT										
Band Ceil.		33		27		19		Speed		AB Oth		AB Oth		AB Oth										
EH+ 46+		—		—		—		—		— —		— —		— —		EH+								
VH 36–45		—		—		—		—		— —		— —		— —		VH								
HI 26–35		1.5 – 3.0		1.5 – 3.0		—		5.0		— 0.25		— 0.25		— —		HI								
MH 17–25		1.0 – 3.5		1.5 – 3.0		1.5 – 3.0		5.0		— 0.50		— 0.25		— 0.25		MH								
ML 8–16		1.0 – 3.5		1.5 – 3.5		1.5 – 3.0		5.0		— 1.00		— 0.50		— 0.50		ML								
LO 0–7		1.0 – 3.5		1.0 – 3.5		1.5 – 3.0		5.0		— 1.00		— 1.00		— 0.50		LO								
Radar: —					ECM: —					Weapon Stations Diagram:														
ECCM: —					RWR: —																			
Arcs: —					DDS: —																			
Search: —					DJM: —																			
Track: —					AJM: —																			
Lock-On: —					BJM: —																			
Guns: One 20 mm ShVAK One 12.7 mm UBS					Technology:					Load Point Limits: CL : < 1														
To Hit: 5/3/0					None					1/2: < 3														
Ammunition: 6.0										Weight Limit: 450 DT : ≥ 3														
Gunsight: TT+0/HT+1/BT+2										Station Limit Allowed Loads 1 and 2 225 BB														
Ranging: —																								
AtA/AtG: 2/2*																								
Bomb System: Manual																								
Notes:																								
1. The Yakovlev Yak-9D is a propeller-driven, long-range day fighter. The NATO reporting name for aircraft is Frank.																								
2. High roll rate (HRR) if CL. High transonic drag (HTD). Low bleed rate (LBR).																								
3. The normal fuel load is 35 fuel points. These guns may be overloaded to 55 fuel points, but doing so reduces power by 0.5 and increases vulnerability to –2 until the fuel drops to 35 fuel points.																								
															</									

Yak-9U										Crew: Pilot									
										Maneuver DPs: LR/DR 1.5 VR 1.5									
Power APs/DPs: ☹ CL 1/2 DT Fuel FT 2.0 1.5 1.5 0.5 HT 0.5 0.5 0.5 0.2 N 0.0 0.0 0.0 0.1 I 1.0 1.0 1.0 0.0 SPBR — — — — If speed ≥ 3.5, reduce power by 0.5.															Turn DPs: CL 1/2 DT TT 0.25 0.25 0.25 HT 0.25 0.25 0.75 BT 0.75 0.75 — ET 1.00 — —				
										Cruise Spd. CL: 3.0    Restr. Arcs: — Climb Spd.: 1.5    Blind Arcs: 30– Visibility: 5    Internal Fuel: 35 Size: –1    AtA Refuel: No Vulnerability: –1    Ejection Seat: None									
Speeds and Ceilings						Climb Capabilities													
Alt. Band	Conf. Ceil.	CL 33	1/2 27	DT 19	Dive Speed	CL AB	Oth	1/2 AB	Oth	DT AB	Oth								
EH+	46+	—	—	—	—	—	—	—	—	—	—	EH+							
VH	36–45	—	—	—	—	—	—	—	—	—	—	VH							
HI	26–35	1.5 – 3.0	1.5 – 3.0	—	5.0	—	0.25	—	0.25	—	—	HI							
MH	17–25	1.0 – 3.5	1.5 – 3.0	1.5 – 3.0	5.0	—	0.50	—	0.25	—	0.25	MH							
ML	8–16	1.0 – 3.5	1.5 – 3.5	1.5 – 3.0	5.0	—	1.00	—	0.50	—	0.50	ML							
LO	0–7	1.0 – 3.5	1.0 – 3.5	1.5 – 3.0	5.0	—	1.00	—	1.00	—	0.50	LO							
Radar: — ECCM: — Arcs: — Search: — Track: — Lock-On: —					ECM: — RWR: — DDS: — DJM: — AJM: — BJM: —					Weapon Stations Diagram:									
Guns: One 20 mm ShVAK Two 12.7 mm UBS To Hit: 5/3/0 Ammunition: 6.0 Gunsight: TT+0/HT+1/BT+2 Ranging: — AtA/AtG: 3/3*					Technology: None														
Bomb System: Manual																			
Notes: 1. The Yakovlev Yak-9U is a propeller-driven day fighter. The NATO reporting name for aircraft is Frank. 2. High roll rate (HRR) if CL. High transonic drag (HTD). Low bleed rate (LBR).					Load Point Limits: CL : < 1 1/2: < 3														
					Weight Limit: 450 DT : ≥ 3														
					Station 1 and 2					Limit 225					Allowed Loads BB				
					VPs: 4/3/1/1										v3 0000000 0000-00-00T00:00:00				

Yak-9P										Crew: Pilot				
										Maneuver DPs: LR/DR 1.5 VR 1.5				
Power APs/DPs: ☉ CL 1/2 DT Fuel FT 2.0 1.5 1.5 0.5 HT 0.5 0.5 0.5 0.2 N 0.0 0.0 0.0 0.1 I 1.0 1.0 1.0 0.0 SPBR — — — — If speed ≥ 3.5, reduce power by 0.5.														
										Cruise Spd. CL: 3.0    Restr. Arcs: — Climb Spd.: 1.5    Blind Arcs: 30– Visibility: 5    Internal Fuel: 35 Size: –1    AtA Refuel: No Vulnerability: –1    Ejection Seat: None				
Speeds and Ceilings						Climb Capabilities								
Alt. Band	Conf. Ceil.	CL 33	1/2 27	DT 19	Dive Speed	CL AB	Oth	1/2 AB	Oth	DT AB	Oth			
EH+	46+	—	—	—	—	—	—	—	—	—	—	EH+		
VH	36–45	—	—	—	—	—	—	—	—	—	—	VH		
HI	26–35	1.5 – 3.0	1.5 – 3.0	—	5.0	—	0.25	—	0.25	—	—	HI		
MH	17–25	1.0 – 3.5	1.5 – 3.0	1.5 – 3.0	5.0	—	0.50	—	0.25	—	0.25	MH		
ML	8–16	1.0 – 3.5	1.5 – 3.5	1.5 – 3.0	5.0	—	1.00	—	0.50	—	0.50	ML		
LO	0–7	1.0 – 3.5	1.0 – 3.5	1.5 – 3.0	5.0	—	1.00	—	1.00	—	0.50	LO		
Radar: — ECCM: — Arcs: — Search: — Track: — Lock-On: —					ECM: — RWR: — DDS: — DJM: — AJM: — BJM: —					Weapon Stations Diagram:				
Guns: One 20 mm ShVAK Two 12.7 mm UBS To Hit: 5/3/0 Ammunition: 6.0 Gunsight: TT+0/HT+1/BT+2 Ranging: — AtA/AtG: 3/3*					Technology: None									
Bomb System: Manual					Load Point Limits: CL : < 1 1/2: < 3 Weight Limit: 450 DT : ≥ 3									
Notes: 1. The Yakovlev Yak-9P is a propeller-driven day fighter. The NATO reporting name for aircraft is Frank. 2. High roll rate (HRR) if CL. High transonic drag (HTD). Low bleed rate (LBR).					Station 1 and 2    Limit 225    Allowed Loads BB									
VPs: 4/3/1/1											v3 0000000 0000-00-00T00:00:00			