



# Лавочкин

## Ла-5

*a wiki for IL2 - battle of Stalingrad*

La-5 s8 (late 1942) is the evolution of Lagg-3 with the M82 Engine far better than the old Klimov VK105PF.

name	year	engine	guns [ammoload]	max sealevel speed kmph	<u>speed</u> at alt, m	climb time 5km, min	range km	turn time s	weight kg	produced
La-5	1942	M-82	2 ShVAK [2*200]	509	<u>580</u> <u>6250</u>	6.0	1190	22	3360	1129

### General characteristics

- **Crew:** one pilot
- **Length:** 8.67 m (28 ft 5.33 in)
- **Wingspan:** 9.80 m (32 ft 1.75 in)
- **Height:** 2.54 m (8 ft 4 in)
- **Wing area:** 17.5 m<sup>2</sup> (188 ft<sup>2</sup>)
- **Powerplant:** 1 × M82 Engine xx kW (1,850 hp)

### Armament

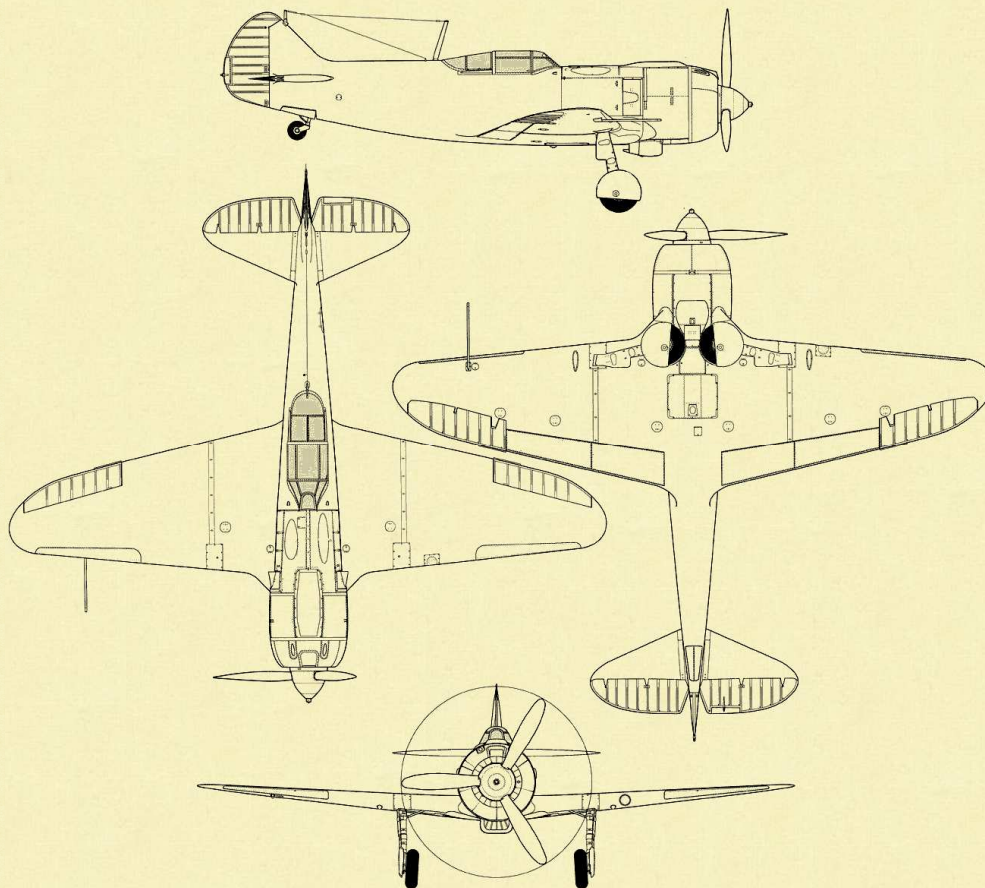
- 2 × 20 mm ShVAK cannons, 200 rounds each
- 2 × bombs up to 100 kg (220 lb) each

#### Other

- Slats for low speed turn
- Boost (Forzatz) 10mn
- Aileron / rudder / elevator Trims
- free tail wheel

### *What you must know :*

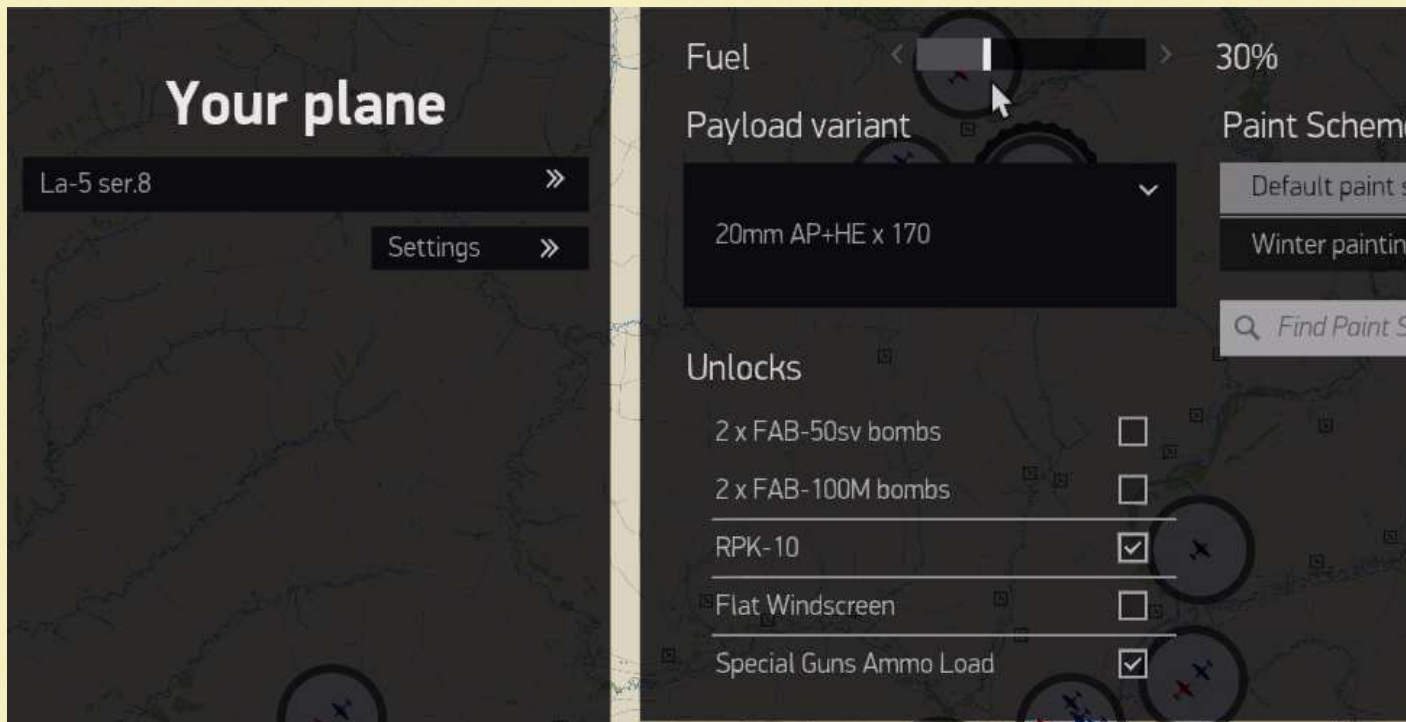
- as the lagg 3 it can do high speed stall, never turn hard to avoid backpressure. turn gently at **320/340 km/h** to not lose Speed and energy.
- Very strong Torque Effect, in slow climb, use full Rudder
- It is an heavy Plane. Dogfighting should take care of Energy. Boom & Zoom is a good way.
- It can be fast, if all coolants flaps increasing drag are closed and if Forzatz used under 2000m. ( never exceed 210° T° and more than 10mn)
- Will never be the best dogfighter but have great VVF guns !
- 250km/h minimum standard speed without flaps



*ingame pre start :*

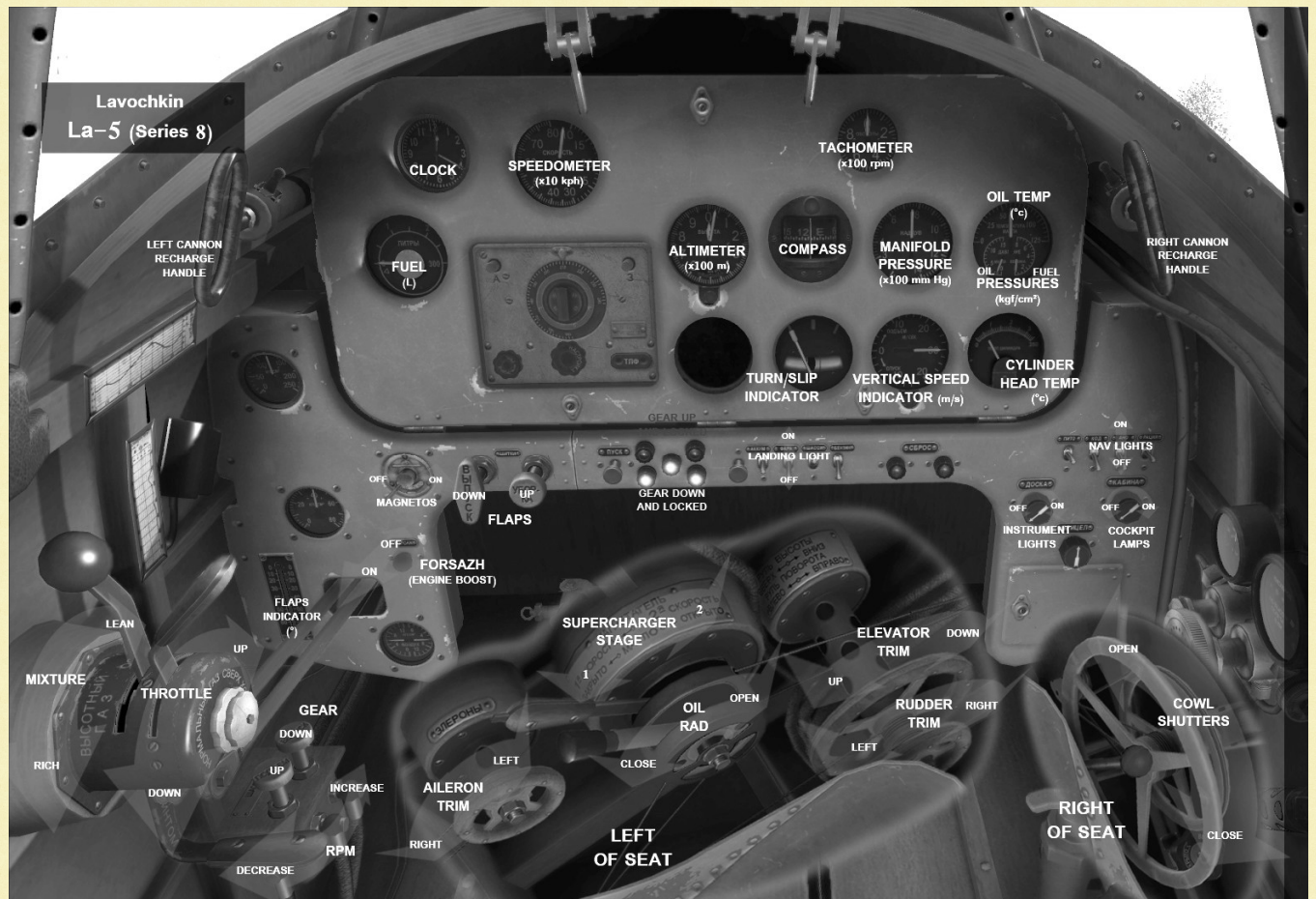
Beginner should start with 30% Fuel, Normal canopy (no flat screen), Loaded with all HE Ammo.

RPK10 is useful to come back home base.



Name	ShVAK
Type	canon
Caliber, mm	20
Muzle speed, m/s	800
ROF, shots per min <u>syncr.</u> not sync.	<u>800</u> 750
Bullet weight, g	96
Penetrated armor @ dist. [angle]	25mm @ 150m [90°] 15mm @ 300m [90°]

Cockpit :



## *~Cold Engine Start*

check every surface control

check trims

check *visibility*, *zoom*, and *Track IR settings*

throttle 15-20%

mix full rich (backward)

RPM full fine (100%) (forward)

Oil and coal rad : closed

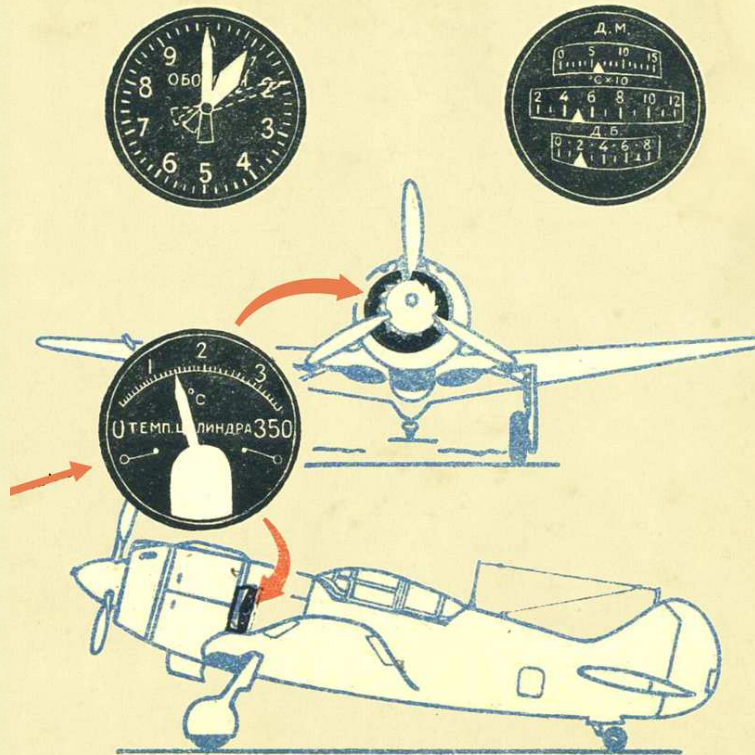
throttle 10 mm from idle (800/900tr/min)

Warm up Oil 40° at 1000tr/mn

Cylinder heads at 1200tr/mn: 120°-215°

To increase Temperature lean mixture

To Cowl Temperature Rich mixture



## *~ Taxiing*

stick back  
 to turn press breaks  
 mixture lean to 80%

## *~ Take Off*

full rpm  
 you can optionally use 15 20° flaps in case of short runway  
 if plane is heavy loaded (full fuel or bombs) use forsatz  
 increase gently to full throttle stick back  
 As the plane has torque effect, correct alignment with rudder.  
 when enough speed (70 80km/h) push stick to middle to up the tail.  
 at 180 km/h push stick back to leave runway

**Fly until 250km/h**

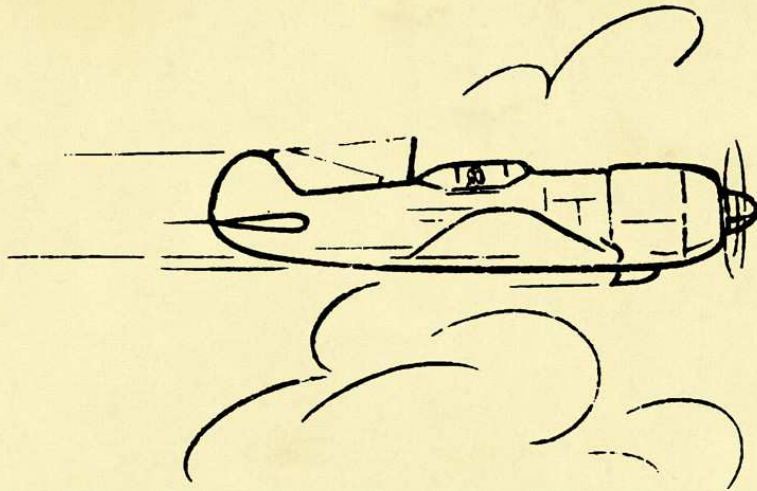
Gear Up

open rad and coolant flap as needed for never exceed 210°) and always up to 120°

oil should be less than 80° ( open oil rad if needed )

Trim your Aircraft aileron / rudder / elevator

flap to 0.



### *~ Best Cruise Settings*

2300 rpm

mixture 80%

Manifold 900mmHg

Engine Cowl Flap Closed

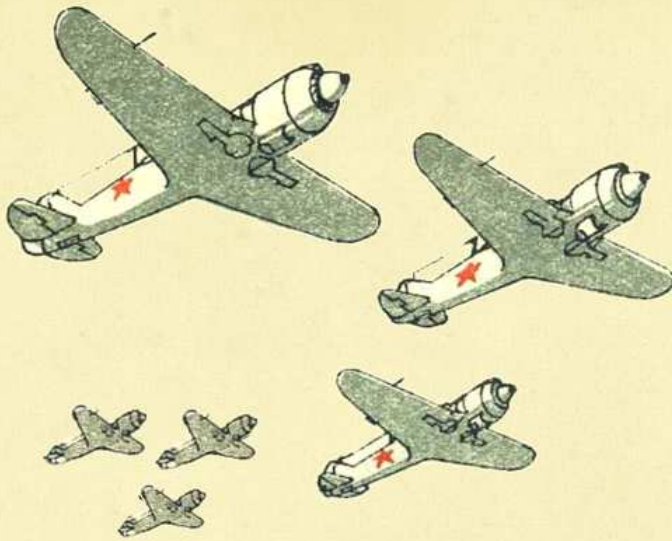
Water Cooler 50% 100°C

Cylinder Head Temp 190-200°C

oil should be less than 80° ( open oil rad if needed )

Trim your Aircraft aileron / rudder / elevator

mixture to 80%



Increase Speed :

if motor cowl flaps increasing drag are closed

( you can keep oil rad open and 50% water cooler)

and if **Forzatz (Boost)** used 1500-2000m. ( never exceed 210° T° and **less than 10mn**)

## *~ Altitude Settings*

Supercharger **gear 2nd at 3500 m**

Mixture : lean progressively you climb.

80% suits well until 6000m

Under 2000m with Gear 1, Forsatz can be used  
for **10mn** maximum. best perf at 1500m

## *~ Landing Settings*

Oil and cowl rad closed (avoid to cowl motor to keep T° )

Full rpm

gear down 300-320km/h

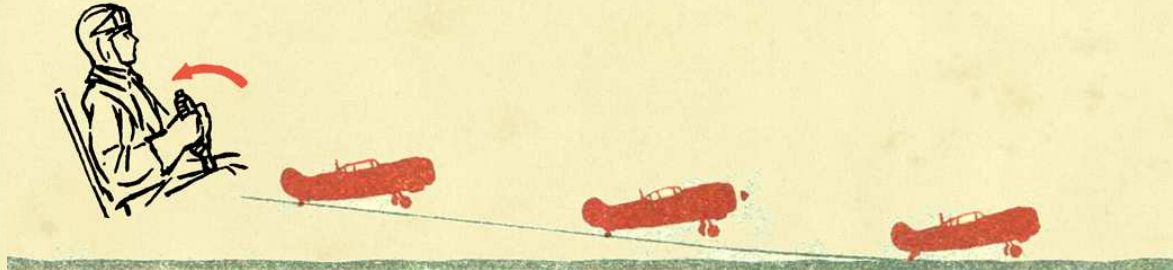
10° flaps <250km/h

**30° Flaps max to avoid bouncing on touch**

approach **200-210 kph**

Touchdown 3-Point **@170 km/h** : flare and nose up, lick snow before runway to  
**down speed with nose up.**

( gently push backward the stick but enough to have 3 point attitude,  
easier to begin at (5-8m)  
take care not flaring aircraft at a too high altitude. you must be in the  
right position at 1m  
Runway with trees and large pov view, is helpfull to see right altitude.



After touch down maintain 800-1000 rpm to have enough wind on Rudder  
push stick fully backward  
never use breaks and rudders. Use breaks OR fast little rudder input to  
correct Straight and avoid ground loops. ("pirouette")  
Cut the motor with max lean mixture settings.



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thanks for all threads, posts, advices, tips and tricks of forum IL2 Battle of Stalingrad & founders.

thanks for dev for this awesome work in progress of a fabulous sim.

thanks to Boxerdog for his translation of original La-5 manual from Spanish to french.

thanks to french founders who help me to understand what a 3 points landing mean.

thanks to phenix habu for cockpit description.

<https://dl.dropboxus...en Français.pdf>

*snowsniper*