FIAT G.50 FRECCIA SERIE II

PERFORMANCE SHEET

	(Unit)	SPITFIRE Mk Ia 100 oct	HURRICANE Mk IA Rotol 100oct	BLENHEIM Mk IV	TIGER MOTH DH.82	BF.109 E-4	BF.110 C-7	JU-87B-2 STUKA	JU-88 A-1	HE-111 H-2	G.50 SERIE II	BR.20M
TEMPERATURES												
Water Rad Min Max	Deg C	60 115	60 115	-	-	40 100	60 90	38 95	40 90	38 95	-	-
Oil Rad (OUTBOUND) Min Max	Deg C	40 95	40 95	40 85	-	40 105	40 85	30 95	40 80	35 95	50 90	50 90
Cylinder Head Temp Min Max	Deg C	-	-	100 235	-	-	-	-	-	-	140 240	140 240
ENGINE SETTINGS												
Takeoff RPM	RPM	3000	3000	2600 FINE	2350	2400	2400	2300	2400	2400	2520	2200
Takeoff Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	+6	+6	+9 BCO ON	See RPM Gauge	1.3	1.3	1.35	1.35	1.35	890	820 BCO ON
Climb RPM	RPM	2700	2700	2400 COARSE	2100	2300 30 min MAX	2300 30 min MAX	2300 30 min MAX	2300 30 min MAX	2300 30 min MAX	2400 30 min MAX	2100 30 min MAX
Climb Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	+6	+6	+5	See RPM Gauge	1.23	1.2	1.15	1.15	1.15	700	740
Normal Operation/Cruise RPM	RPM	2700	2600	2400 COARSE	2000	2200	2200	2200	2100	2200	2100	2100
Normal Operation/Cruise Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	+3	+4	+3.5	See RPM Gauge	1.15	1.15	1.1	1.1	1.10	590	670
Combat RPM	RPM	2800	2800	2400 COARSE	2100	2400	2400	2300	2300	2300	2400	2100
Combat Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	+6	+6	+5	See RPM Gauge	1.3 5 min MAX	1.3 5 min MAX	1.15	1.15	1.15	700	740
Emergency Power/ Boost RPM @ km	RPM	2850 5 min MAX	2850 5 min MAX	2600 COARSE 5 min MAX	2350	2500 1 min MAX	2400 5 min MAX	2300 1 min MAX	2400 1 min MAX	2400 1 min MAX	2520 3 min MAX	2200 5 min MAX
Emergency Power / Boost Manifold Pressure @ Sea Level	UK: PSI GER: ATA ITA: mm HG	+12 BCO ON	+12 BCO ON	+9 BCO ON	See RPM Gauge	1.40 1 min MAX	1.3 5 min MAX	1.35 1 min max	1.35 1 min max	1.35 1 min max	890 3 min max	820 BCO ON 5 min MAX
Supercharger Stage 1 Operation Altitude	UK: ft GER: M	-	-	-	-	-	-	0 1500	0 1220	0 1220	-	-
Supercharger Stage 2 Operation Altitude	UK: ft GER: M ITA: M	-	-	-	-	-	-	1500+ (AUTO/MAN MODES)	1220+	1220+	-	-
Landing Approach RPM	RPM	3000	3000	2400	As required	2300	2300	2000	2100	2300	2400	2200
Landing Approach Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	As required	As required	As required	See RPM Gauge	As required	As required	As required	As required	As required	As required	As required
Notes		Use "Rich" mixture for normal operation. Use "Lean" mixture for fuel conservation for RPM under 2600 & boost @ +1 or lower.		Boost Cut-Out Override (BCO) during takeoff often required	**Min Oil Press: 35 psi** **Max Oil Press: 45 psi**			No Abrupt Throttling	Eng. very sensitive to ata/rpm	Eng. very sensitive to ata/rpm		Boost Cut-Out Override (BCO) during takeoff often required
AIRSPEEDS												
Takeoff – Rotation	UK: mph GER/ITA: km/h	120	120	110	55	180	190	170	185	150	170	175
Max Dive Speed		420	390	260	160	750	620	720	675	600	410	600
Optimal Climb Speed		165	175	135	66	240	270	215	250	240	240	210
Landing – Approach		160	160	140	55	200	220	170	200	200	175	175
Landing – Touchdown		90	90	85	50	160	180	150	180	140	160	160

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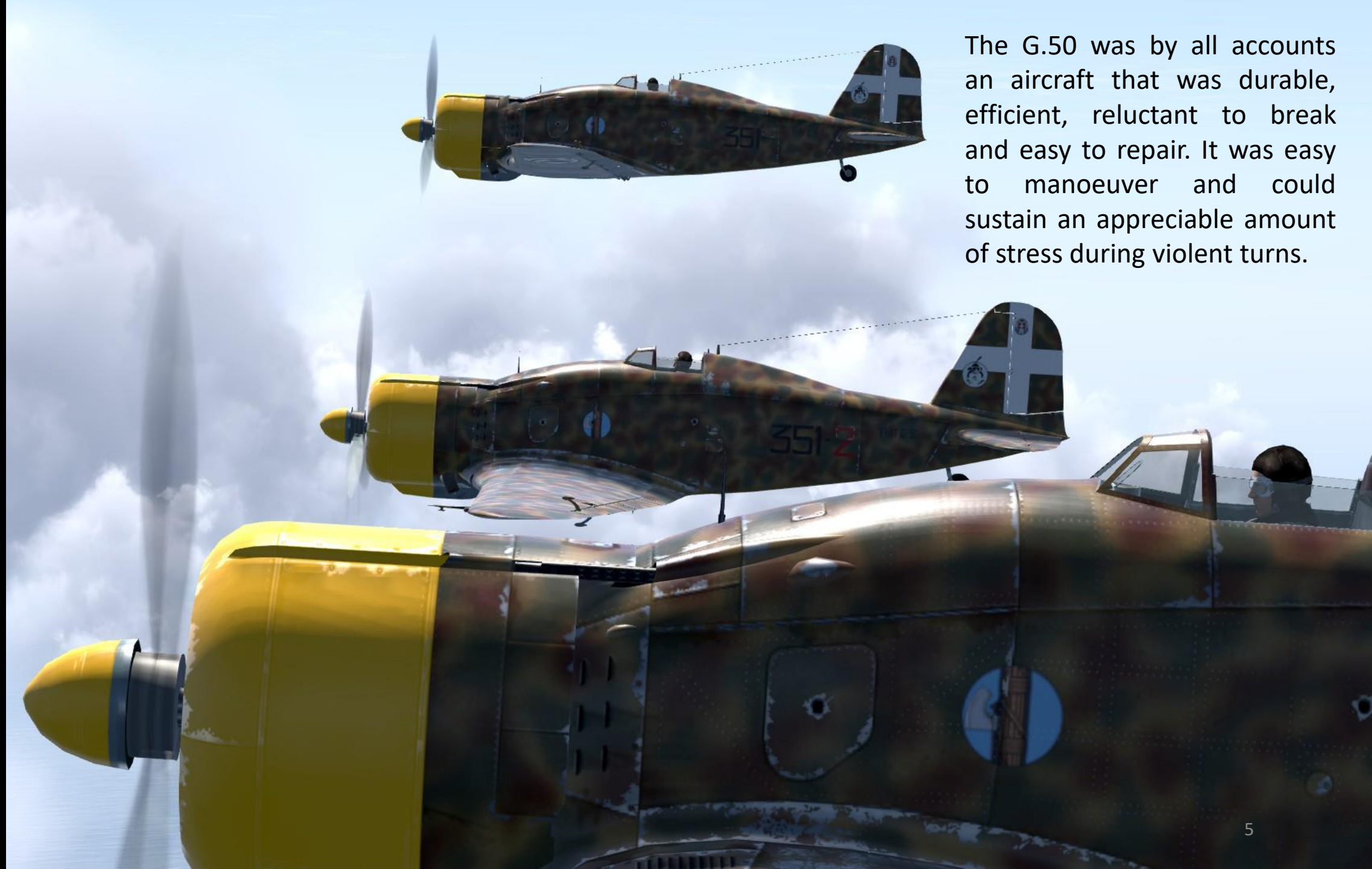
- PART 9: AIRCRAFT PERFORMANCE

PART 1: AIRCRAFT HISTORY

The **Fiat G.50** ***Freccia*** ("Arrow"), designed by Giuseppe Gabrielli, was a World War II Italian fighter aircraft. First flown in February 1937, the G.50 was Italy's first single-seat, all-metal monoplane with an enclosed cockpit and retractable Undercarriage to go into production. In early 1938, the *Freccias* served in the *Regia* Aeronautica (the Italian Air Force), and with its expeditionary arm, the Aviazione Legionaria, in Spain, where they proved to be fast and, as with most Italian designs, very manoeuvrable. However, it had inadequate weaponry (two Breda-SAFAT 12.7-mm machine guns). The Fiat G.50 was also used in small numbers by theCroatian Air Force and 35 were flown to Finland, where they served with distinction, with an unprecedented kill/loss ratio of 33/1.

PART 1: AIRCRAFT HISTORY



The G.50 was by all accounts an aircraft that was durable, efficient, reluctant to break and easy to repair. It was easy to manoeuver and could sustain an appreciable amount of stress during violent turns.

PART 1: AIRCRAFT HISTORY

In September 1940, *20 Gruppo* (351/352/353 Squadrons), commanded by *Maggiore* Bonzano and equipped with Fiat G.50, was part of *56 Stormo*, formed to operate during the Battle of Britain as part of the *Corpo Aereo Italiano* (Italian Air Corps, CAI) based in Belgium. The G.50s were hampered by their slow speed, open cockpits and short range.

PART 1: AIRCRAFT HISTORY

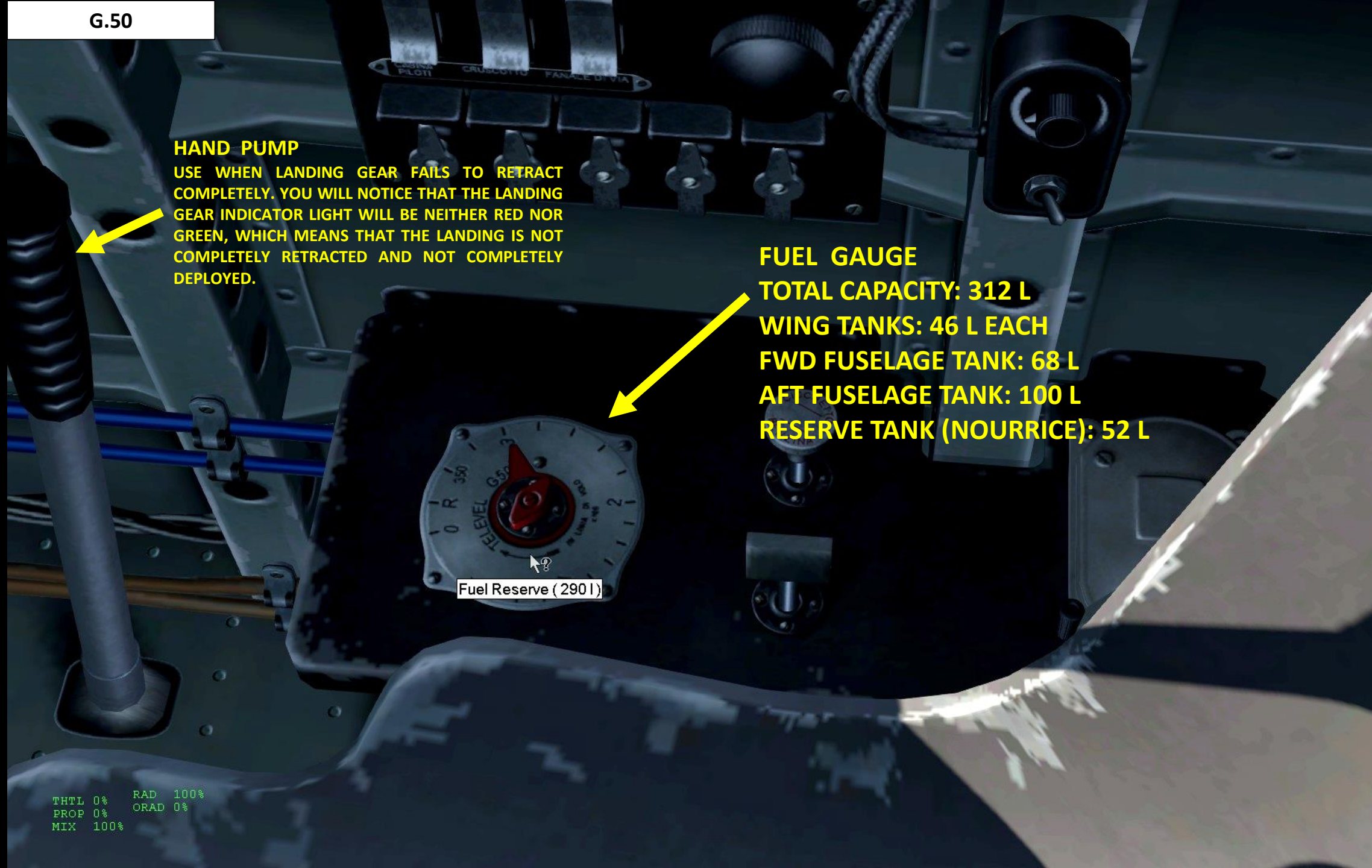
The experiences of the early G.50s over Britain showed their inadequacies. Their operations were almost useless in the campaign, because they were too short-ranged and stationed too far from enemy territory. The G.50s had limited endurance, and missions rarely exceeded one hour. The G.50 bis with its larger fuel tanks was already in production, but it was not sent to *20 Gruppo* in time.

PART 2: AIRCRAFT VARIANTS

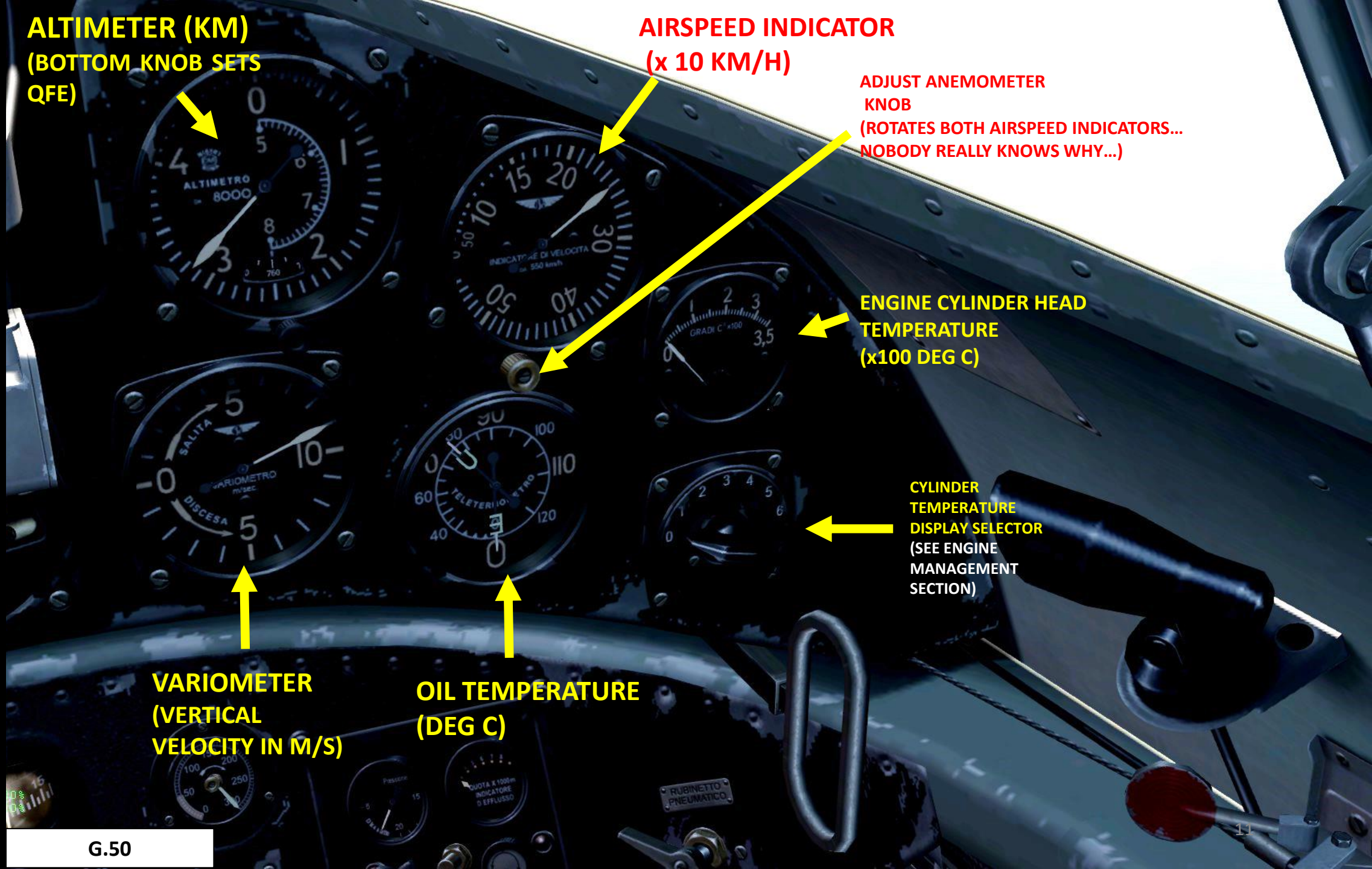
	(Unit)	G.50 SERIE II
TEMPERATURES		
Oil Rad (OUTBOUND) Min **Max**	Deg C	50 90
Cylinder Head Temp Min **Max**	Deg C	140 240
ENGINE SETTINGS & PROPERTIES		
Engine & Fuel grade		FIAT A.74 / R.C.38 87 octane fuel
Takeoff RPM	RPM	2520
Takeoff Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	890 BCO ON
Climb RPM	RPM	2400 30 min MAX
Climb Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	700
Normal Operation/Cruise RPM	RPM	2100
Normal Operation/Cruise Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	690
Combat RPM	RPM	2400
Combat Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	700
Emergency Power/ Boost RPM @ km	RPM	2520 3 min MAX
Emergency Power / Boost Manifold Pressure @ Sea Level	UK: PSI GER: ATA ITA: mm HG	890 BCO ON 3 min MAX
Landing Approach RPM	RPM	2400
Landing Approach Manifold Pressure	UK: PSI GER: ATA ITA: mm HG	As required
Top Speed @ Sea Level	UK: MPH GER-ITA: km/h	**<u>410</u>**
Notes & Peculiarities		Boost Cut-Out Override (BCO) during takeoff often required

PART 3: AIRCRAFT & COCKPIT FAMILIARIZATION

G.50

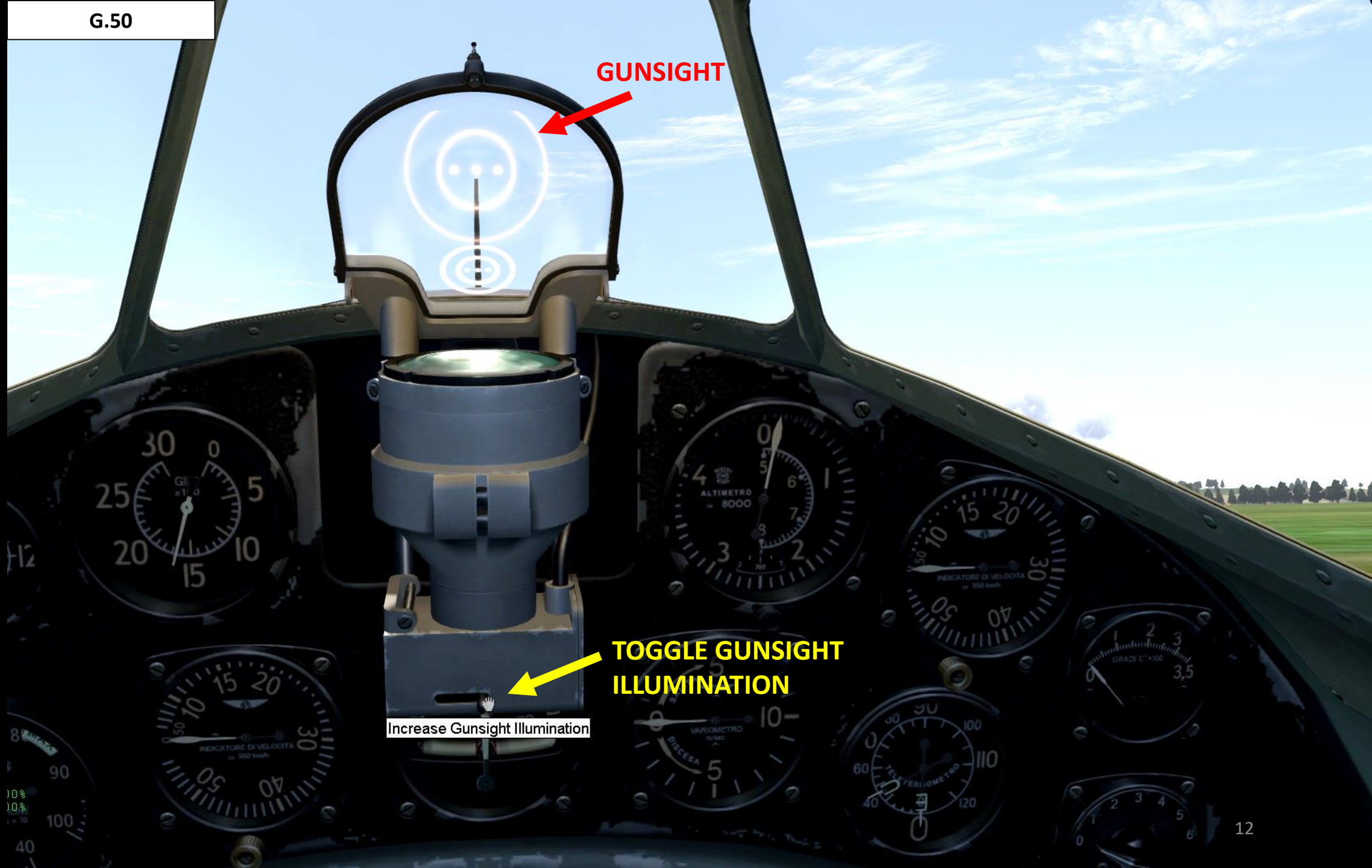

HAND PUMP
USE WHEN LANDING GEAR FAILS TO RETRACT COMPLETELY. YOU WILL NOTICE THAT THE LANDING GEAR INDICATOR LIGHT WILL BE NEITHER RED NOR GREEN, WHICH MEANS THAT THE LANDING IS NOT COMPLETELY RETRACTED AND NOT COMPLETELY DEPLOYED.
FUEL GAUGE
TOTAL CAPACITY: 312 L
WING TANKS: 46 L EACH
FWD FUSELAGE TANK: 68 L
AFT FUSELAGE TANK: 100 L
RESERVE TANK (NOURRICE): 52 L
Fuel Reserve (290 l)
THTL 0%
PROP 0%
MIX 100%
RAD 100%
ORAD 0%

PART 3: AIRCRAFT & COCKPIT FAMILIARIZATION



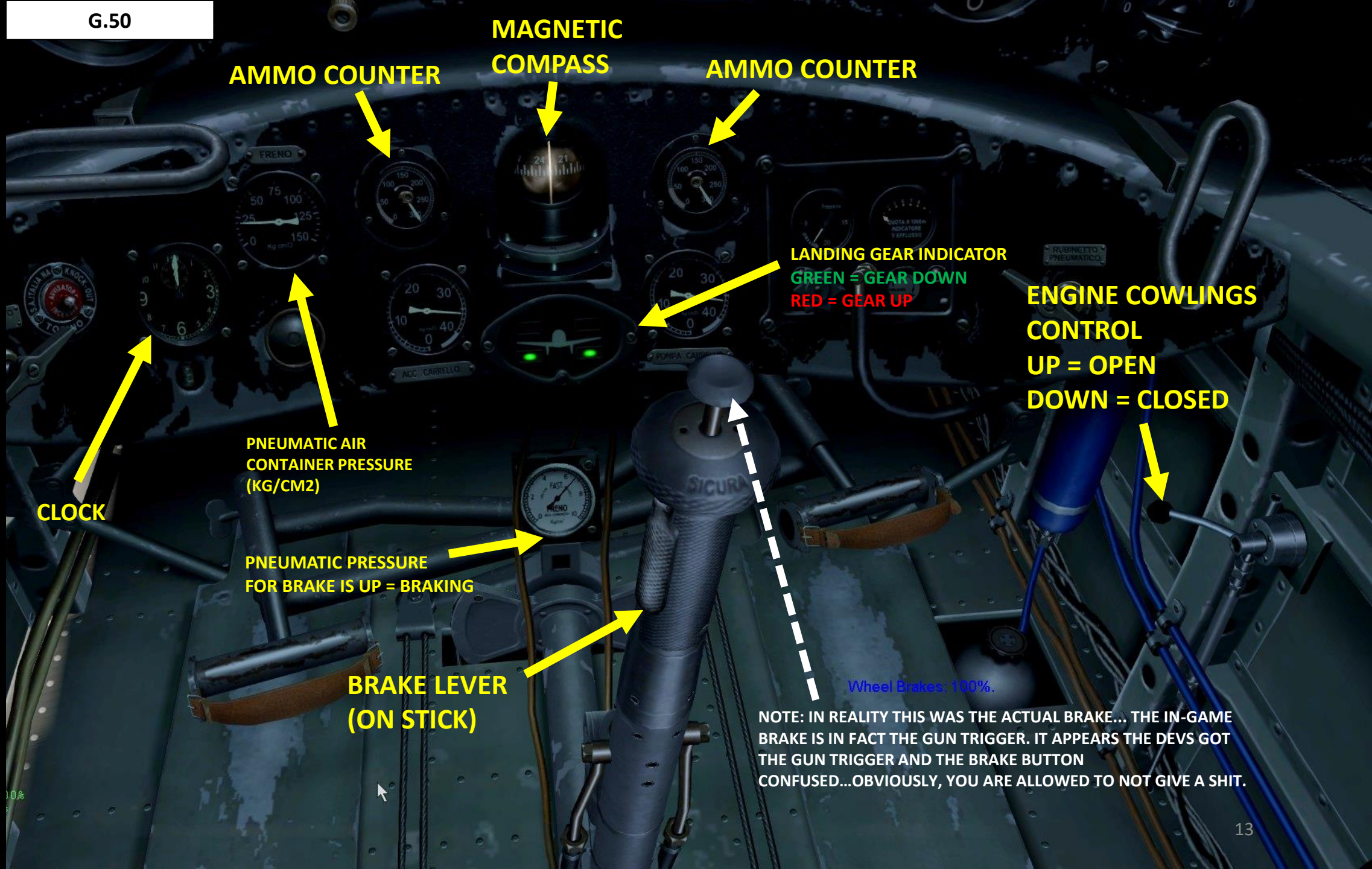
G.50

G.50


GUNSIGHT
TOGGLE GUNSIGHT ILLUMINATION
Increase Gunsight Illumination

PART 3: AIRCRAFT & COCKPIT FAMILIARIZATION

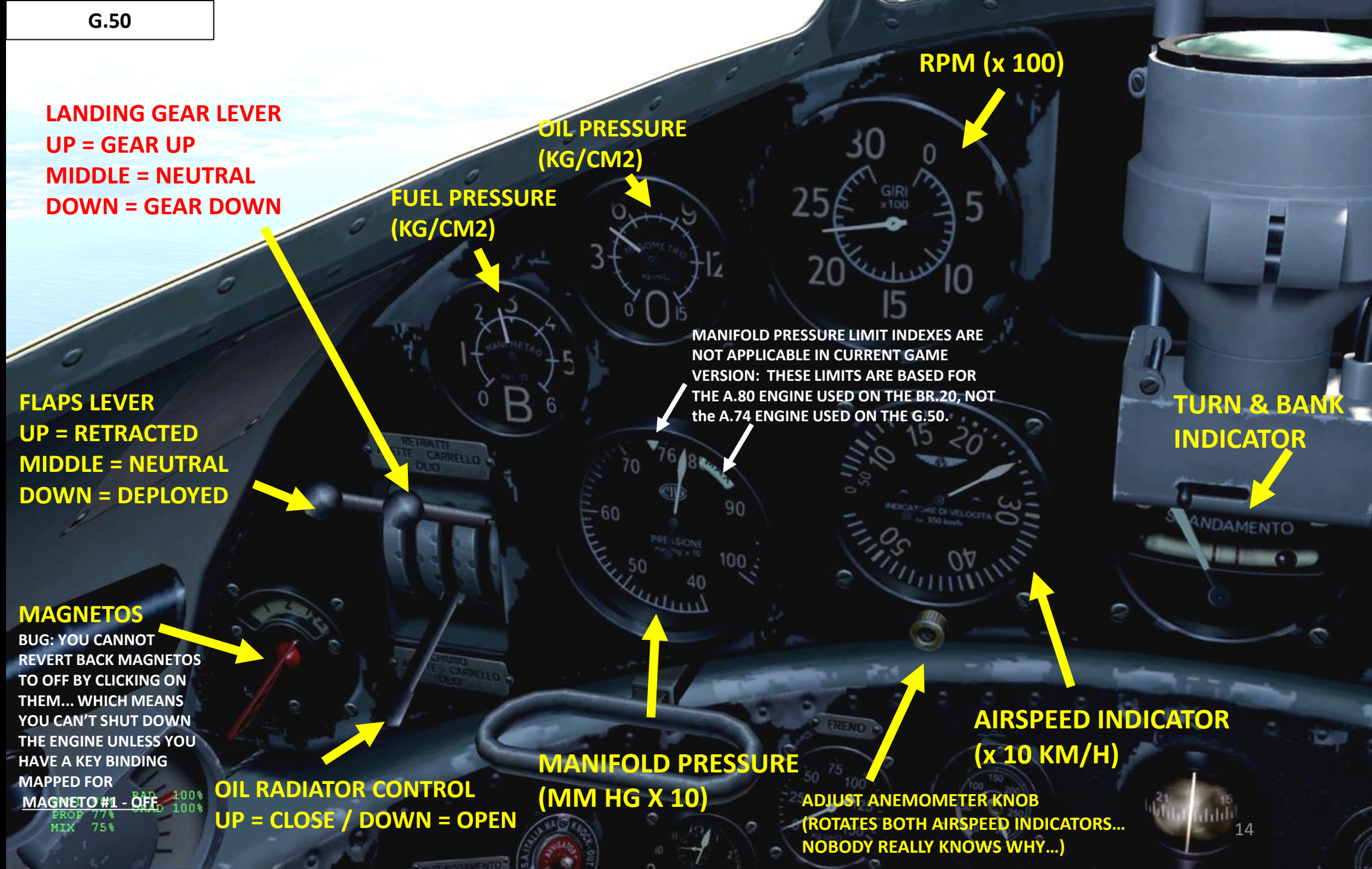
G.50



NOTE: IN REALITY THIS WAS THE ACTUAL BRAKE… THE IN-GAME BRAKE IS IN FACT THE GUN TRIGGER. IT APPEARS THE DEVS GOT THE GUN TRIGGER AND THE BRAKE BUTTON CONFUSED…OBVIOUSLY, YOU ARE ALLOWED TO NOT GIVE A SHIT.

PART 3: AIRCRAFT & COCKPIT FAMILIARIZATION

G.50



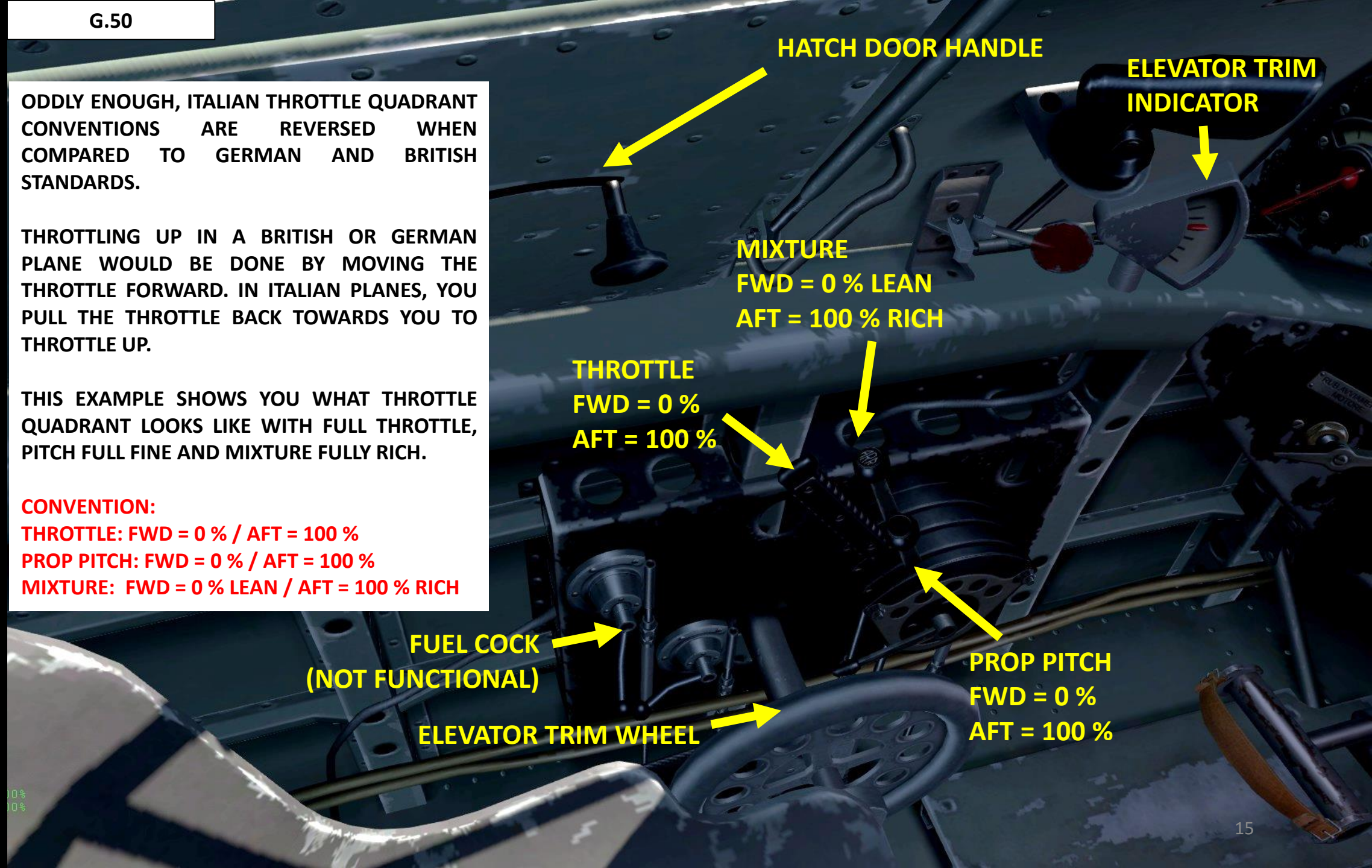
G.50

ODDLY ENOUGH, ITALIAN THROTTLE QUADRANT CONVENTIONS ARE REVERSED WHEN COMPARED TO GERMAN AND BRITISH STANDARDS.

THROTTLING UP IN A BRITISH OR GERMAN PLANE WOULD BE DONE BY MOVING THE THROTTLE FORWARD. IN ITALIAN PLANES, YOU PULL THE THROTTLE BACK TOWARDS YOU TO THROTTLE UP.

THIS EXAMPLE SHOWS YOU WHAT THROTTLE QUADRANT LOOKS LIKE WITH FULL THROTTLE, PITCH FULL FINE AND MIXTURE FULLY RICH.

CONVENTION:
THROTTLE: FWD = 0 % / AFT = 100 %
PROP PITCH: FWD = 0 % / AFT = 100 %
MIXTURE: FWD = 0 % LEAN / AFT = 100 % RICH



PART 3: AIRCRAFT & COCKPIT FAMILIARIZATION

WHY TWO AIRSPEED GAUGES?

- You might notice that there are two airspeed gauges on the plane. Now… why is that?

- The **short answer** is that the G.50 was a stall-prone aircraft. Therefore, it is essential for the pilot to be absolutely sure 100 % of the time of what his airspeed is if he wants to avoid nasty stalls. For **security and redundancy reasons**, the designer of the G.50 thought that putting **two pitot tubes** (one on each wing, you can check!) would be useful in case one of the pitot tubes has a wrong reading. This is why you have two independent airspeed gauges.

- The **long answer** is… there is a **relationship between airspeed and a pitot tube**.

1. Airspeed can be found with air pressure sensors placed on the aircraft.
2. There are 2 types of pressure: static and dynamic.
3. Static pressure is the ambient air pressure
4. Dynamic pressure is based on the pressure differential between you and a moving fluid (like wind!)
5. Total pressure = dynamic pressure + static pressure
6. Dynamic pressure = total pressure - static pressure
7. Dynamic pressure is a function of air density (which varies with altitude) and airspeed.
8. $\text{Dynamic Pressure} = \frac{1}{2} * (Air\ Density) * (Airspeed)^2$
9. From that equation, we know that airspeed is found from dynamic pressure.
10. Therefore, if we have sensors for the total pressure (obtained from pitot tube, which is like a dog with its head out of a car) and a static pressure (obtained from a static port, more on that next slide), we can find easily your airspeed!
11. $Airspeed = \sqrt{\frac{Dynamic\ Pressure}{0.5 * (Air\ Density)}} = \sqrt{\frac{(Total\ Pressure) - (Static\ Pressure)}{0.5 * (Air\ Density)}}$

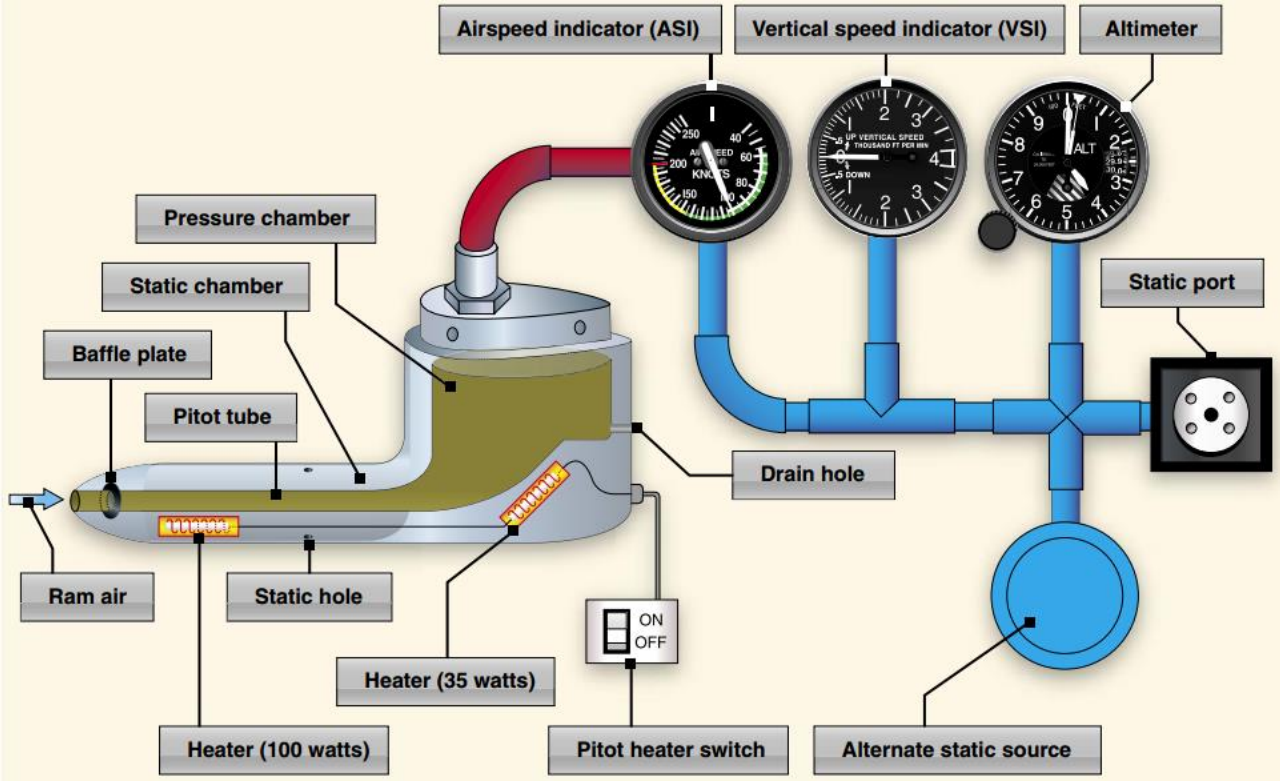
TOTAL PRESSURE (DOG FEELS THE WIND SPEED + AMBIENT PRESSURE)

STATIC PRESSURE (DOG FEELS AMBIANT PRESSURE ONLY)

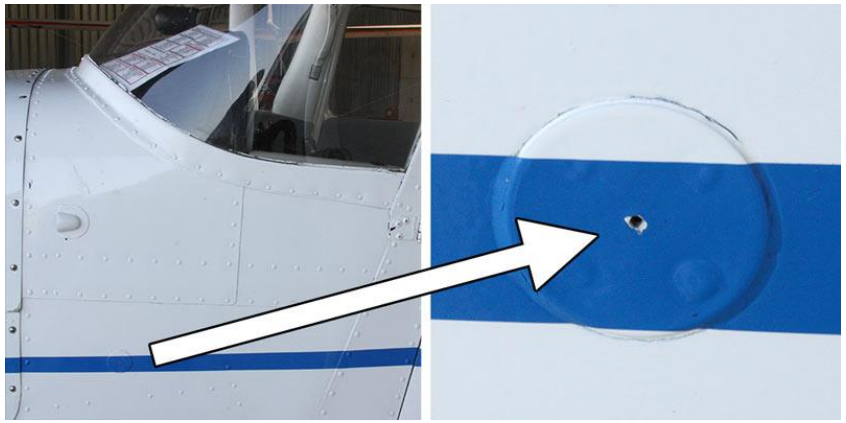
WHY TWO AIRSPEED GAUGES?

- Hence we need 2 sensors: a static port (static pressure) and a pitot tube (total pressure) to obtain an airspeed.
- A pitot tube is usually fit on the wings, which is where there is the most airflow to get the most accurate measurement of total pressure possible (since you need to be aligned with the moving fluid).
- A static port is a pressure sensor that needs to be placed in a particular place in order to measure a proper "static pressure" (which means in an area undisturbed by wind, undisturbed by dynamic effects). This means that the static port must be placed in a way that the sensor is perpendicular to the wind (and will not feel its pressure effect).

PITOT-STATIC SYSTEM



STATIC PORT

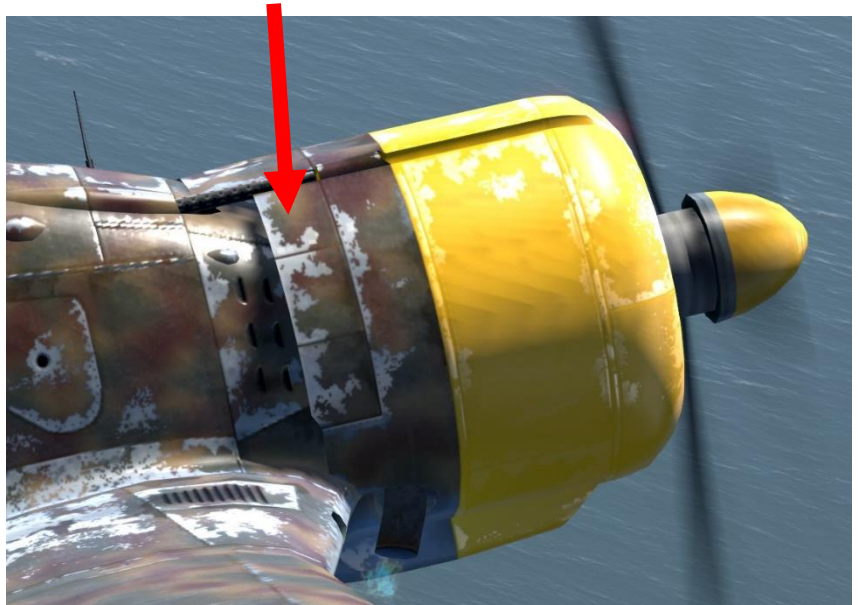


The static port pressure sensor will feel the pressure of the air laterally (or from the side of the aircraft), but will not feel the dynamic pressure created by the motion of the aircraft. See the "dog in car" analogy from previous page.

PART 3: AIRCRAFT & COCKPIT FAMILIARIZATION

ENGINE COWLING FLAPS OPEN (ALSO CALLED “LOUVRES”)
GOOD = MORE AIRFLOW TO COOL THE ENGINE
BAD = MORE DRAG, LESS SPEED

ENGINE COWLING FLAPS CLOSED (ALSO CALLED “LOUVRES”)
GOOD = LESS DRAG, MORE SPEED
BAD = LESS AIRFLOW TO COOL THE ENGINE, HIGH RISK OF ENGINE OVERHEAT



OIL RAD CLOSED
GOOD = LESS DRAG, MORE SPEED
BAD = LESS AIRFLOW TO COOL THE ENGINE, HIGH RISK OF ENGINE OVERHEAT

OIL RAD OPEN
GOOD = MORE AIRFLOW TO THE OIL COOLER
BAD = MORE DRAG, LESS SPEED

HOW TO RECOGNIZE A TAIL NUMBER

Italy

The system used for most aircraft flying in the Battle of Britain was rather uniform regardless of plane type or squadron.

Tail Number. Usually a one- or two-digit number for any regiment type, preceded by a two- or three-character number designating the squadron. The squadron number is added onto the plane automatically.

Serial Number.

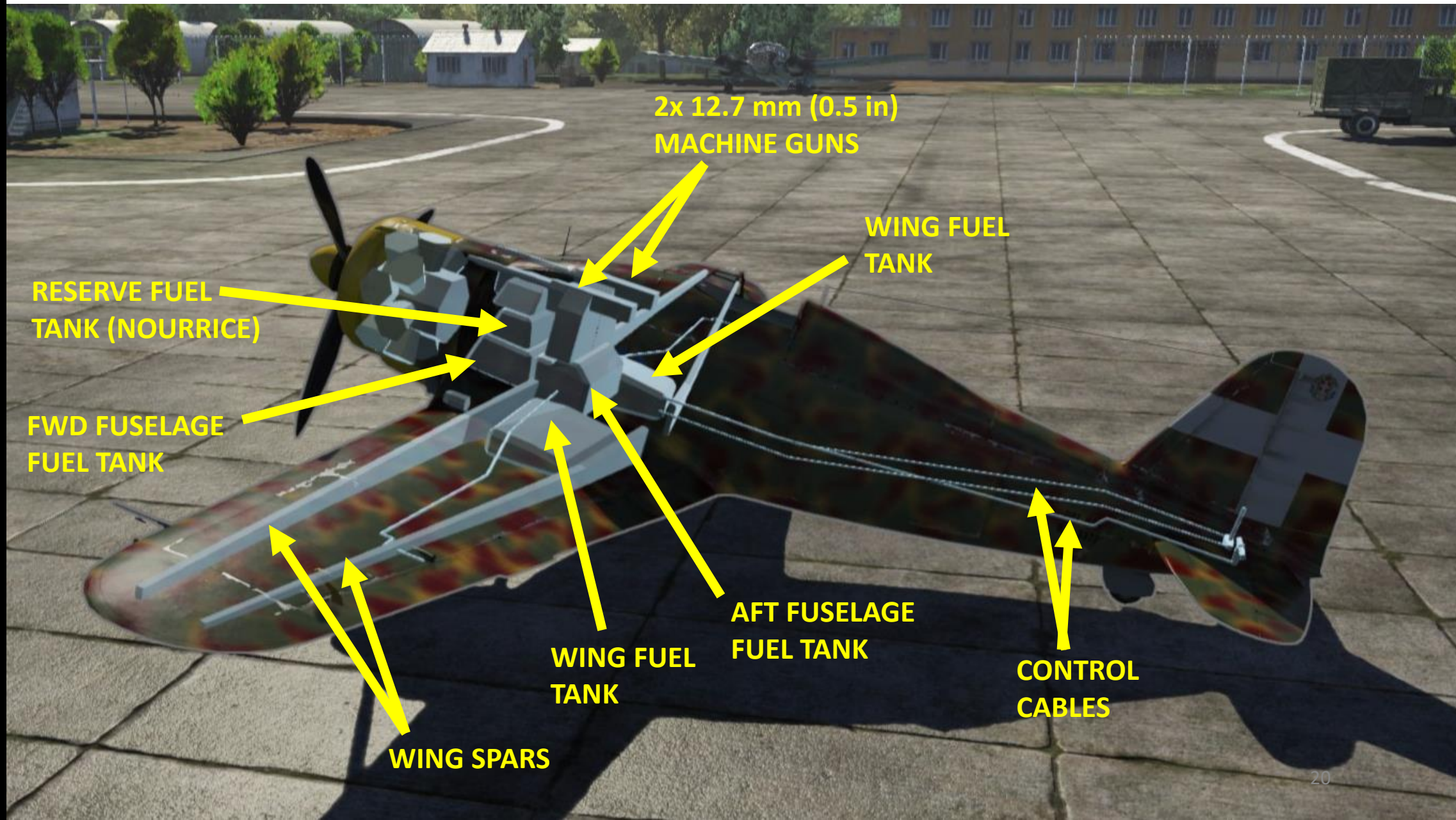
Fighters: usually a six-character string starting with MM and followed by four numbers.

Bombers: a seven-character string starting with MM and followed by five numbers.

Some Examples (symbols in **bold** can be set by the player, symbols in *italics* are automatically set by Cliffs of Dover)

Plane	Squadron	Tactical #	Serial #
CR.42	83a Squadriglia	*83-***1**(?)	*MM***5694**
CR.42	95a Squadriglia	*95-***14**	*MM***5703**
G.50	20 Gruppo	*20*	*MM***5372**
G.50	352a Squadriglia	*352-***7**	(none)
BR.20M	242a Squadriglia	*242-***4**	*MM***22626**
BR.20M	243a Squadriglia	*243-***9**	*MM***21879**

CRITICAL COMPONENTS



PART 4: CONTROLS

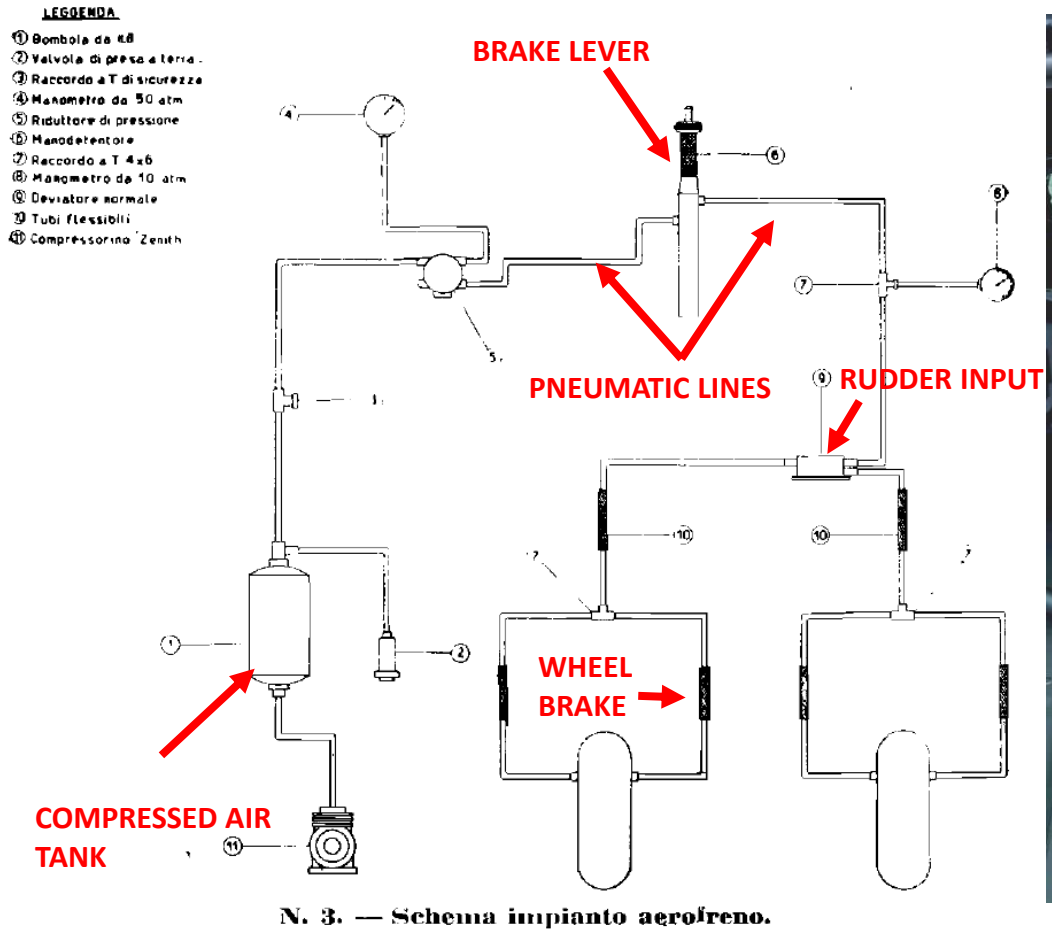
FIAT G.50 FRECCIA		
DESCRIPTION	MAPPED TO	ESSENTIAL / NON-ESSENTIAL
Wheel Chocks		ESSENTIAL
Wheel brakes		ESSENTIAL
bail out		ESSENTIAL
Operate Hand Pump		CLICKABLE IN COCKPIT
toggle primary cockpit illumination		CLICKABLE IN COCKPIT
increase gunsight illumination		CLICKABLE IN COCKPIT
decrease gunsight illumination		CLICKABLE IN COCKPIT
toggle selected engine (ignition)	“I” by default	ESSENTIAL
directional controls (ailerons, elevators, and rudder)	Joystick & Rudder Pedal axes	ESSENTIAL
Trim controls (elevator)	Joystick hat switch	ESSENTIAL
Field of View + (allows you to zoom out)		ESSENTIAL
Field of View – (allows you to zoom in)		ESSENTIAL
Magneto # 1 – OFF (in-game bug prevents you from clicking magnetos back to OFF position)		ESSENTIAL

PART 4: CONTROLS

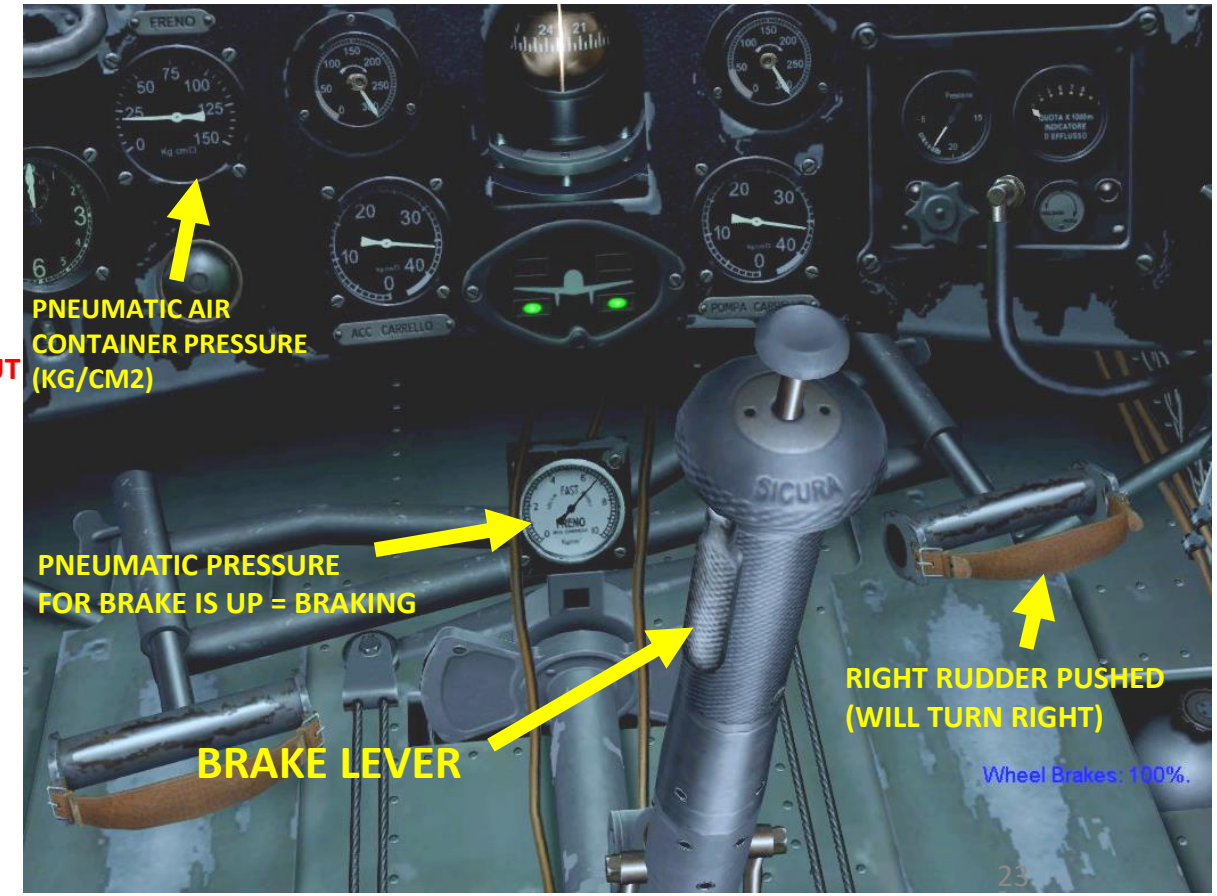
FIAT G.50 FRECCIA		
DESCRIPTION	MAPPED TO	ESSENTIAL / NON-ESSENTIAL
lean to gunsight		NOT ESSENTIAL
fire guns	Joystick Gun Trigger	ESSENTIAL
throttle	Throttle axis	ESSENTIAL
boost cut-off (boost cut-out override)		ESSENTIAL
toggle canopy/hatch		ESSENTIAL
increase mixture	+	ESSENTIAL
decrease mixture	-	ESSENTIAL
open radiator	Up Arrow keyboard	ESSENTIAL
close radiator	Down Arrow keyboard	ESSENTIAL
open oil radiator	Right Arrow keyboard	ESSENTIAL
close oil radiator	Left Arrow keyboard	ESSENTIAL
increase propeller pitch	Usually set to Axis for second throttle. Set to keyboard otherwise.	ESSENTIAL
decrease propeller pitch		ESSENTIAL
Toggle undercarriage (landing gear)		ESSENTIAL
Toggle Independent Mode (allows you to use/hide mouse cursor)	F10	ESSENTIAL

PART 4: CONTROLS

- Unlike the German aircraft, the G.50 uses differential braking instead of toe brakes.
- In order to brake, you need to hold your “Full Wheel Brakes” key (which is physically mapped as a lever on your control column) while you give rudder input to steer your aircraft. Make sure you have adequate mixture, RPM and Manifold Pressure settings or your turn radius will suffer. Keep in mind that that for British and Italian aircraft, you use this braking system (Full Wheel Brakes key), while for the German aircraft you use toe brakes (“Full Left/Right Wheel Brakes” keys or “Left/Right Wheel Brakes” axes in your controls).



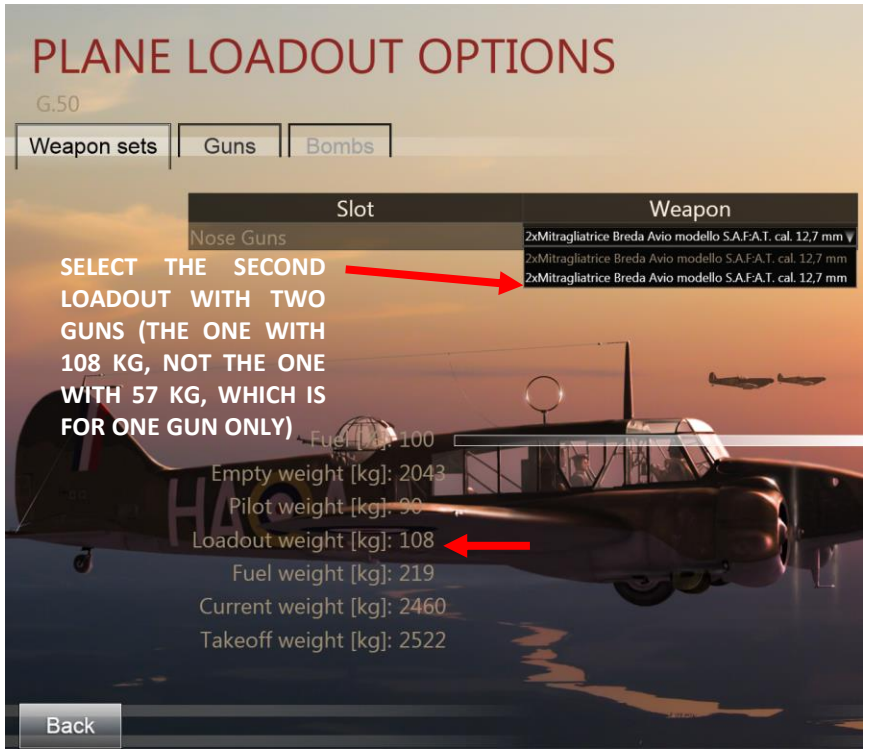
N. 3. — Schema impianto aerofreno.

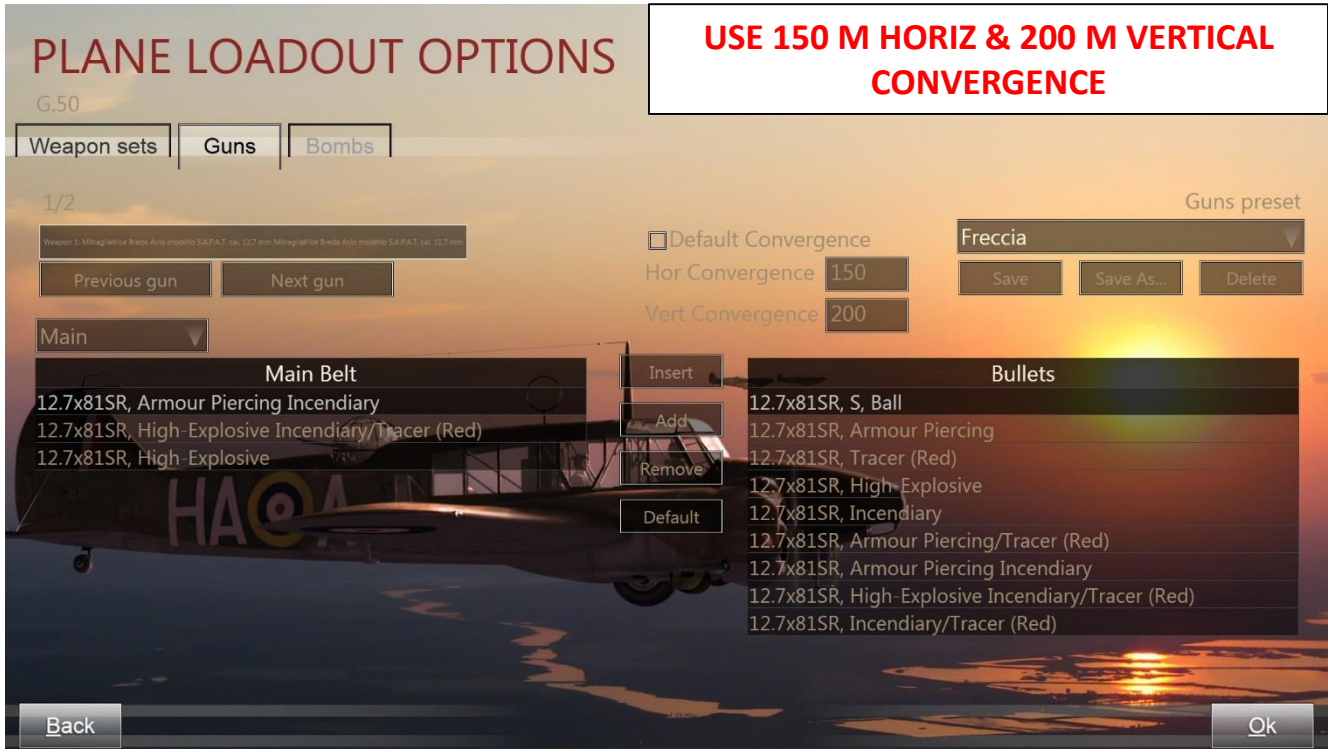


Recommended Machine-Gun Belt Loadouts

Mitragliatrice Breda Avio model S.A.F.A.T. (12.7 mm / 0.50 in)

1. 12.7x81SR, Armour Piercing/Tracer (Red)
2. 12.7x81SR, High Explosive Incendiary/Tracer (Red)
3. 12.7x81SR, Armour Piercing Incendiary
4. 12.7x81SR, High Explosive





USE 150 M HORIZ & 200 M VERTICAL CONVERGENCE

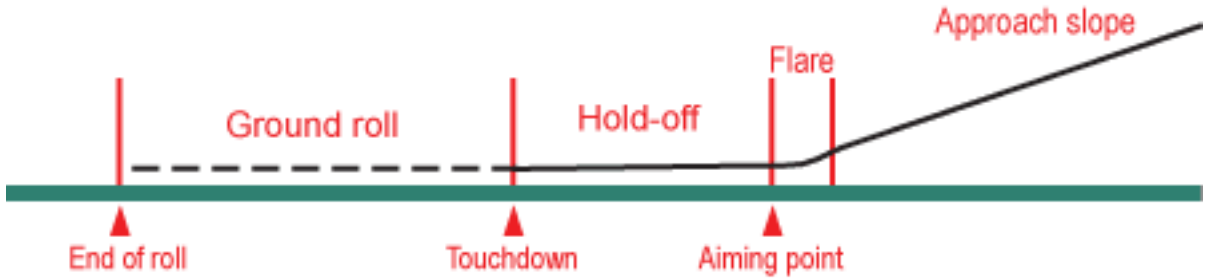
PART 6: TAKEOFF

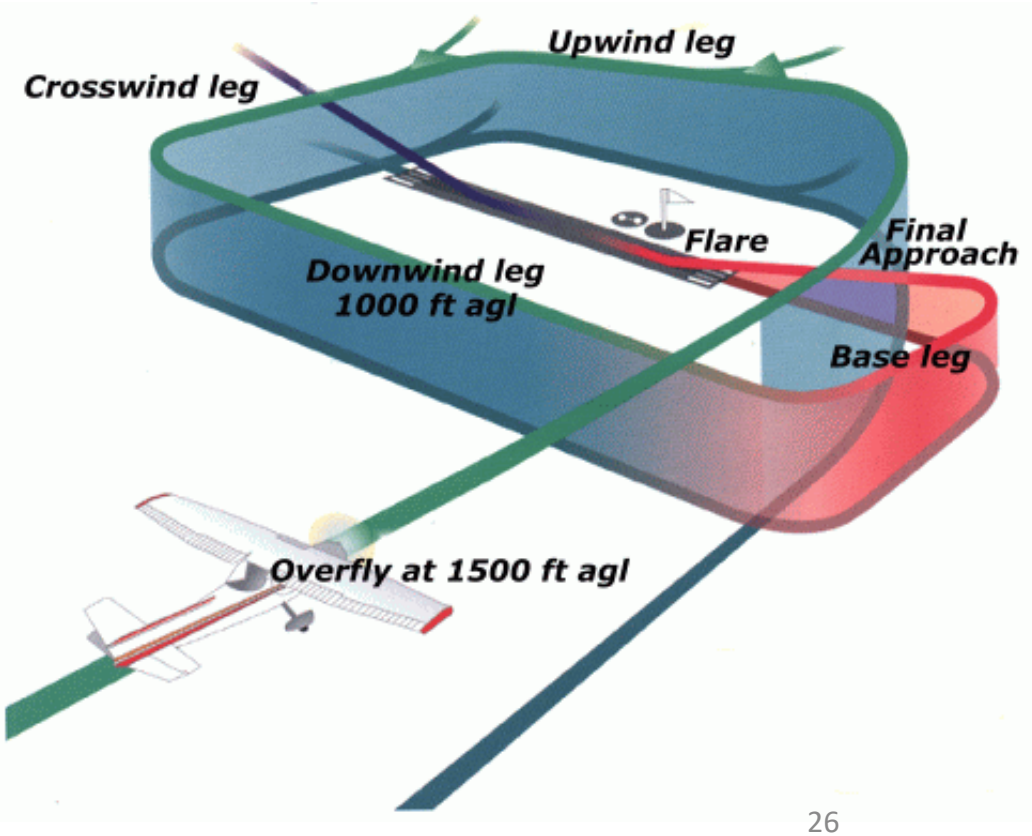
NOTE: This procedure is NOT the real-life start-up procedure, it has been simplified in the sim.

1. Make sure you have the proper fuel load by checking the fuel gauge.
2. Ensure that mixture is set to fully rich.
3. Set your prop pitch to full fine (100 %).
4. Crack throttle about 10 %.
5. Engine cowling flap and oil radiator flaps fully closed.
6. Magnetos to BOTH (M1 + M2).
7. Make sure your propeller is clear (“Clear prop!”)
8. Engine ignition! (press “I” by default)
9. Open cowling flaps 100 %, oil radiator flaps 50 % and prop pitch is fully FINE (100 %).
10. Click on the Cylinder Head Temperature Gauge Selector (Sender) and set to any cylinder.
11. Wait for oil temperature to reach at least 50 deg C and the cylinder head temperature to reach at least 140 deg C.
12. Taxi to the runway. You can taxi with low oil temps without any problem. Make sure you are facing yellow panels on the runway. This means you are facing the right direction for takeoff.
13. Perform last takeoff checks: door hatch closed, cowlings fully open, oil rad 50 %, Full Fine prop pitch, good oil & cylinder head temperatures.
14. Set Boost Cut-Out Override ON (not visible in cockpit, use key binding).
15. Gradually throttle up. Compensate for engine torque and wind using right aileron and rudder pedals to keep the aircraft straight. Slightly push the stick forward to lift the tail.
16. Rotation is at 175 km/h.
17. Raise landing gear and flaps UP and adjust engine settings to 2100 RPM and 740 mm HG max for climb. Set Boost Cut-Out Override OFF (not visible in cockpit, use key binding).

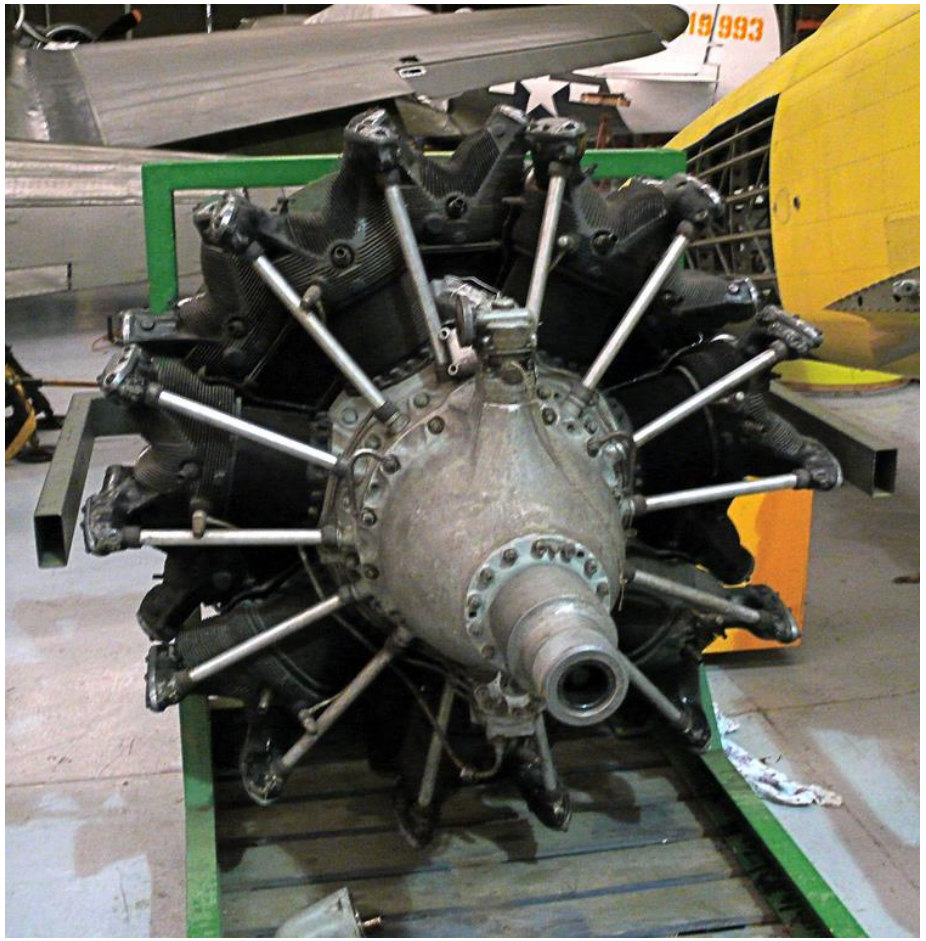
PART 7: LANDING

1. Start your approach at 175 km/h @ approx. 800 m (1500 ft AGL).
2. Cowling flaps and oil rads fully open (100 %) and set prop pitch to full fine (100 %).
3. Deploy flaps (fully down) and landing gear.
4. Cut throttle and try to keep your nose pointed to the end of the runway.
5. Touchdown at 160 km/h in a 3-point landing.
6. Stick fully back.
7. Tap your brakes until you come to a full stop. Be careful not to overheat your brakes or force your aircraft to nose over into a prop strike.

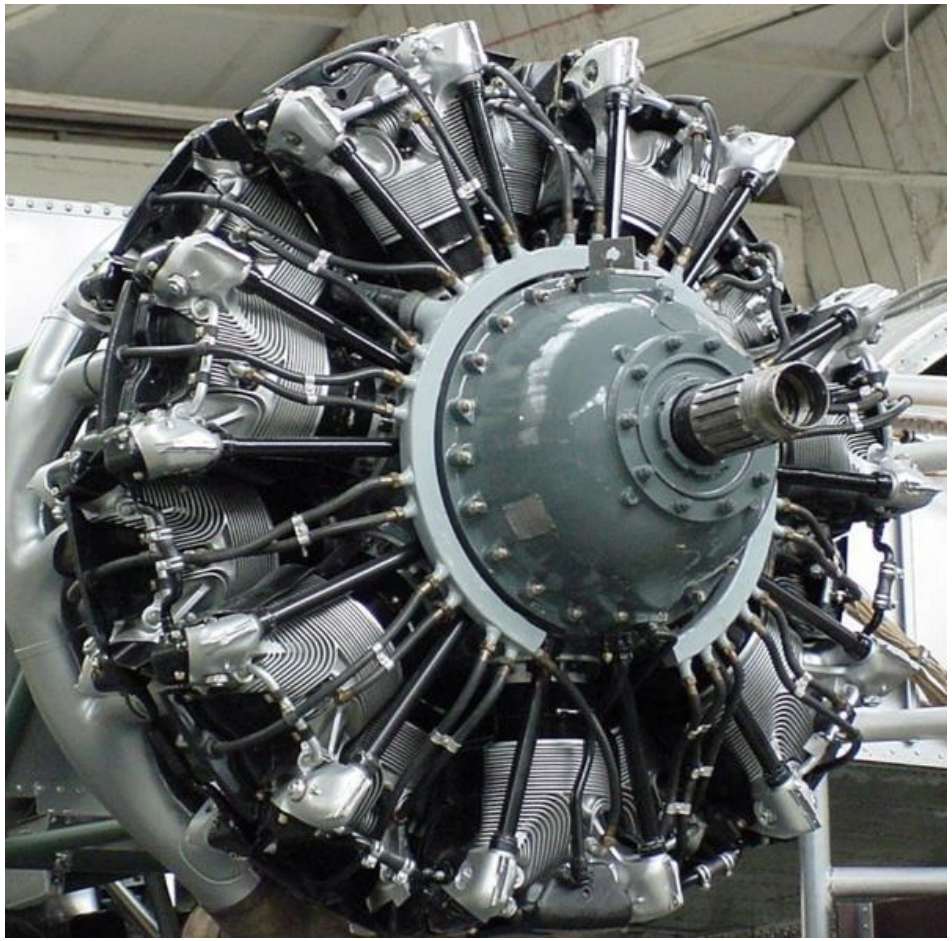




PART 8: ENGINE MANAGEMENT



Fiat A.74 / R.C.38 Engine

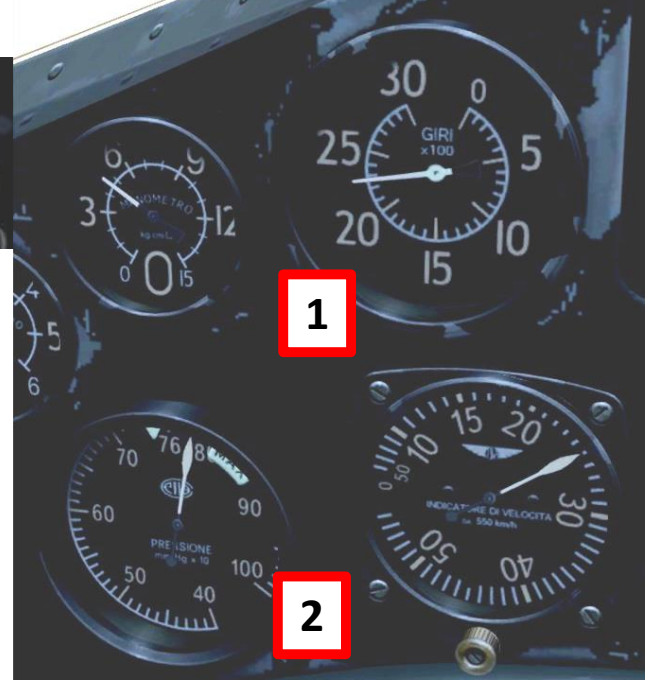


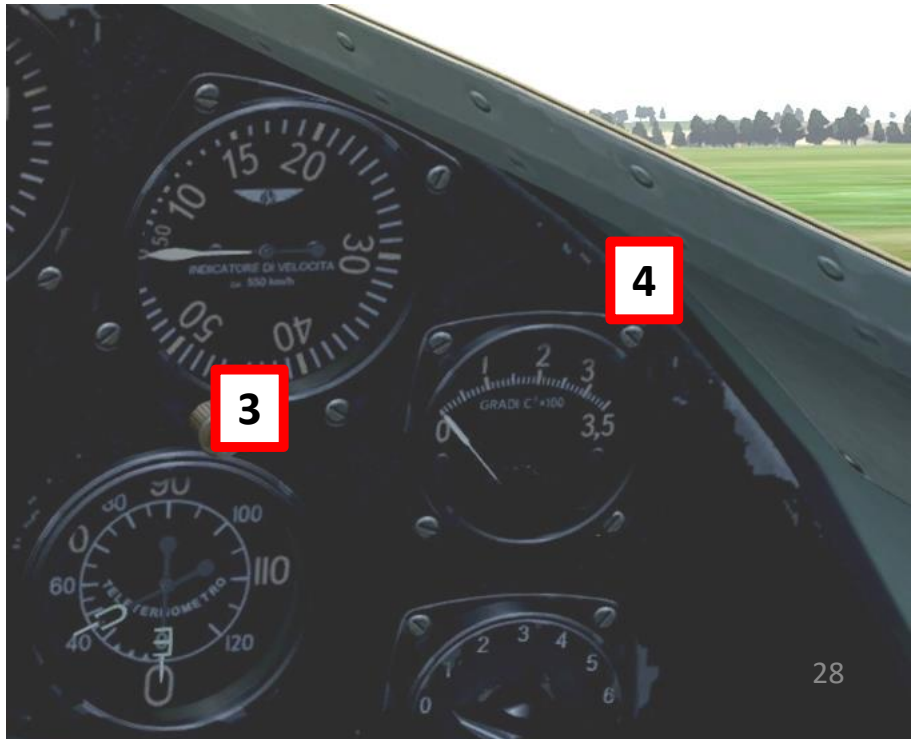
Pratt & Whitney R-1830 Twin Wasp Engine (A.74 design derived from it)

The **Fiat A.74 / R.C.38** is a 14-cylinder, twin-row, air-cooled radial engine with reduction gear and supercharger, rated altitude 3,800 m. The A.74 was important in that it marked a transition for Fiat from liquid-cooled inline engines, to large air-cooled radial engines. Fiat had made a number of smaller radial air engines over the years but the A.74 marked a major increase in power and size. The A.74 family was widely produced and spawned a number of related engines such as the A.76, A.80, and A.82. Each successive generation being larger and more powerful than the previous. The entire series grew from 14 cylinders to 18 cylinders with a power output of 870 hp to 1,400 hp.

PART 8: ENGINE MANAGEMENT

- During a mission, the flight lead usually calls out his engine settings once in a while for the pilots to know what settings they should use.
- You can read your engine settings from the gauges in the cockpit or from an info window.
  - The RPM indicator (1) shows 2100 RPM. The manifold pressure (2) reads 700 mm HG.
  - The oil radiators (3) can be approximated by looking at the oil rad lever or read from the info window in %. The control for cowling flaps is the same as the one used for water radiators. (100 % = fully open). Cowling flaps influence the cylinder head temperatures. (4)
  - The engine is equipped with a carburetor which requires mixture settings to be adjusted according to altitude.
- Mixture settings:
  - 0-2000m: 100% mix
  - 2000-4000m: 95% mix
  - 4000-6000m: 90% mix
  - 6000-8000m: 85% mix
- Boost Cut-Out override can be turned on as long as you do not exceed safety manifold pressure. However, keep in mind **that there is no physical switch in the cockpit: you need to use a key binding for it.**
- The resulting RPM is affected by manifold pressure (2), prop pitch (6)
- Cowling flaps settings:
  - 0 % during engine warm-up
  - 100 % during normal operation
- Oil radiator settings:
  - 0 % during engine warm-up
  - 50 % during normal operation
  - 75 % during climb





		(Unit)	BR.20M
TEMPERATURES			
Oil Rad	**Min**	Deg C	50
	Max		90
Cylinder Head Temp	**Min**	Deg C	140
	Max		240

PART 8: ENGINE MANAGEMENT

CYLINDER HEAD TEMPERATURES

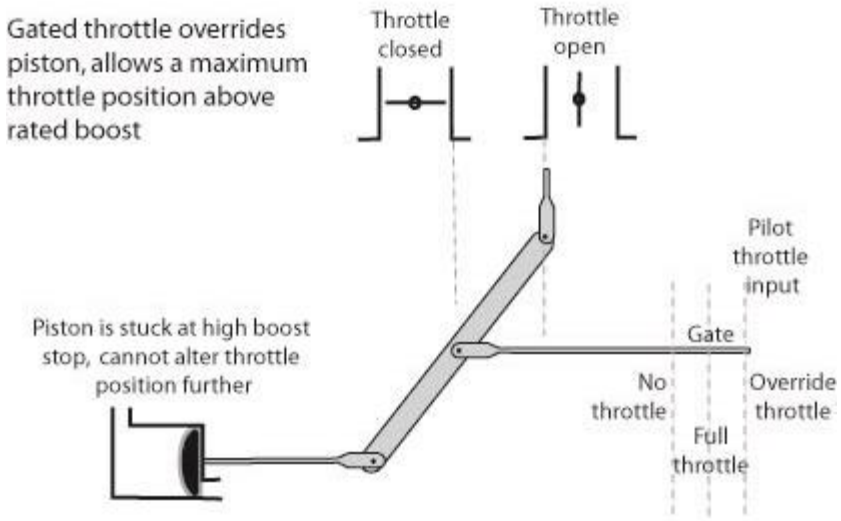
- In order to monitor cylinder head temperatures, you only have one gauge to do so.
- The Fiat A.74 R.C.38 is a 14-cylinder air-cooled radial engine.
- Click on the “Cylinder Head Temperature Next Sender” selector to choose which individual pair of cylinders will have its temperature displayed on the temperature gauge.
- In theory, all cylinders should have approximately the same temperature, which is why in-game you can only click once on the selector, monitor a single cylinder, and have a good idea how the temperature state of your whole engine.
- A diligent pilot would probably check each pair of cylinders periodically to make sure all cylinders are operating within safety parameters. Fortunately, we don’t really have to do that in CloD…
- If your engine is damaged by flak or enemy fire, using the Cylinder Head Temp Selector switch is a good way to know how many cylinders are still functioning. The loss of a single cylinder does not mean that the engine stops running… That’s the beauty of radial engines: they will keep running even when they are falling apart!

Boost cut-out override (BCO)

Keep in mind that there is no physical switch in the cockpit: you need to use a key binding for it.

The Boost control override did not originate as an emergency power setting, but was adapted to be so. In original form, it was just a way of disabling the boost controller in case of malfunction, thus making the system directly link the pilot handle to the throttle valve and giving him the ability to set any boost the supercharger was capable of (but without control, boost would change with altitude).

Although it is hard to find references on this, it is easy to see how the BCO could become an unofficial emergency power switch. A pilot could pull it and try for a bit more boost than the rated 740 mm HG, and hopefully get a bit more power without damaging the engine.



PART 9: AIRCRAFT PERFORMANCE

AIRSPEEDS		
Takeoff – Rotation	UK: mph GER/ITA: km/h	175
Max Dive Speed		600
Optimal Climb Speed		210
Landing – Approach		175
Landing – Touchdown		160

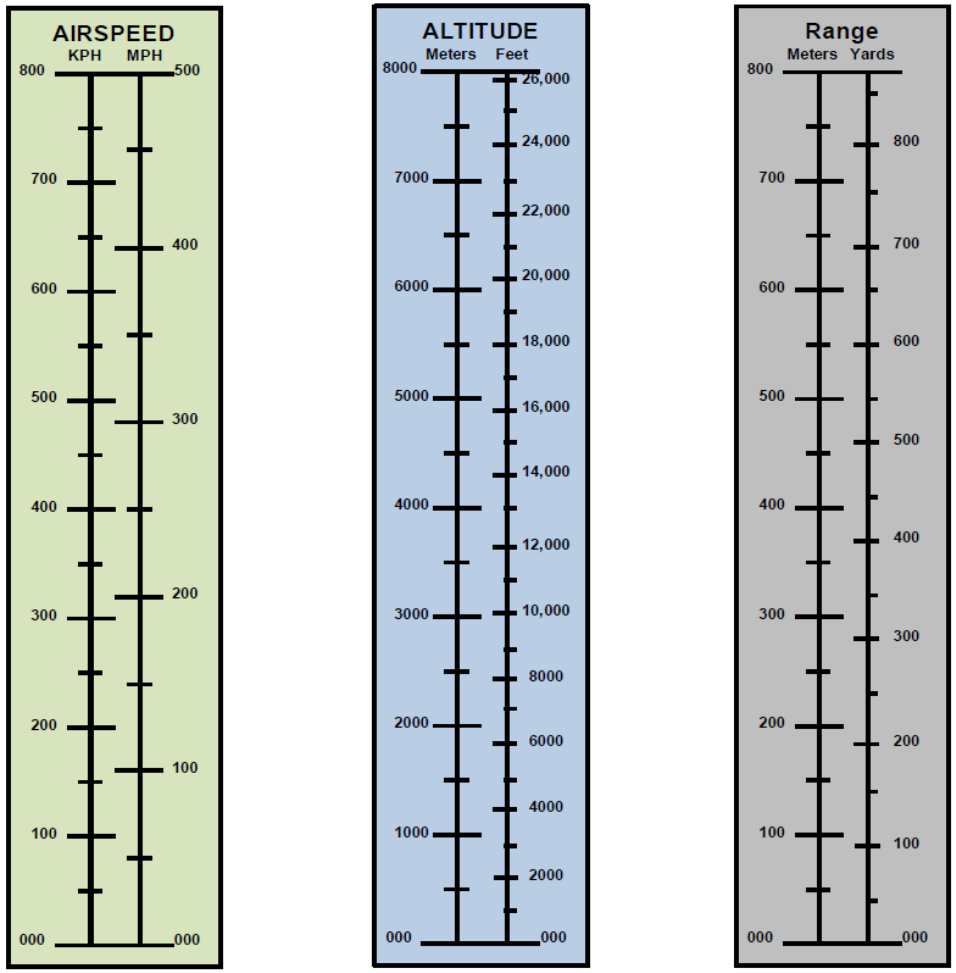
- A climb speed of 210 km/h is recommended.
- When diving, pilots should partially close their Air Louvres (cowling flaps) and Oil Radiators to prevent the Cylinder Heads and oil from cooling too much otherwise misfiring and rough running may result.
- Unfortunately, there is not a whole lot of information on the G.50's performance.

SPECIFICATIONS	
ENGINE	FIAT A.74 R.C.38
WEIGHTS	
SPEED LIMITS	
Stall Speed	150 km/h
Max Diving Speed	720 km/h

- While the G.50 is one of the slower fighter aircraft in CloD, it has an excellent turn rate that can surprise many Spitfire and Hurricane pilots. Use this turn rate to your advantage.
- The G.50 is also very resilient. It is not rare for Spitfire pilots to spend much more ammunition than they would expect to shoot down a G.50. The G.50's fuel tanks are well protected and the pilot has an armor plate behind his seat for protection. The G.50's radial engine can still function despite having some cylinders damaged.

PART 9: AIRCRAFT PERFORMANCE

ONE **CONVERSION DATA** ONE



International Civil Aviation Organization International Standard Atmosphere							
Temperature		Altitude Above Sea Level		Atmospheric Pressure			Mach 1
°F	°C	feet	meters	inches Hg	mm Hg	psia	mph
59	15	SL	0	29.92	760	14.70	761
55	13	1000	305	28.86	733	14.17	758
52	11	2000	610	27.82	706	13.67	755
48	9	3000	914	26.82	681	13.17	752
45	7	4000	1219	25.84	656	12.69	750
41	5	5000	1524	24.90	632	12.23	748
38	3	6000	1829	23.98	609	11.78	745
34	1	7000	2134	23.09	586	11.34	742
31	-1	8000	2438	22.22	564	10.92	740
27	-3	9000	2743	21.39	543	10.51	736
23	-5	10000	3048	20.58	523	10.10	734
5	-15	15000	4572	16.89	429	8.29	720
-13	-25	20000	6096	13.75	349	6.75	706
-31	-35	25000	7620	11.10	282	5.45	693
ONE							ONE