




Flight Procedures

Aero AT-3 R100

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1. FOREWORD

This guide has been prepared to provide pilots with information for the flight procedures based on the **Aero AT-3 R100 Aeroplane Flight Manual**. It is the responsibility of the pilot to study carefully the **AFM**, a deep knowledge of airplane features and limitations is essential for operating the airplane safely. Subtle differences in this document compared to the **AFM** are company-based procedures that ensures the improvement of flight safety. The content of this document is approved by the Head of Training.

2. FLIGHT PREPARATION

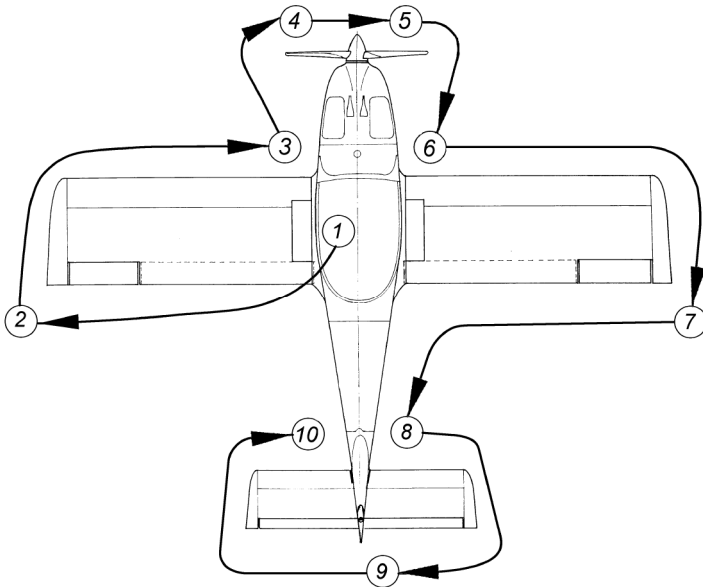
Before flight define the aircraft **take-off weight** and **CG position** according the actual traffic load and ramp fuel from different load diagrams (luggage load 0kg; 10kgs; 20kgs; 30kgs). Also define the **landing weight** and **CG position** of the aircraft calculating with the estimated fuel consumption. (See Attachment 1). Detailed calculation method can be found in the **AFM Section 6 WEIGHT AND BALANCE**.

3. PRE-FLIGHT CHECK

This chapter is an extract from **AFM Section 4 NORMAL PROCEDURES**. For detailed information about pre-flight inspections refer to that section.


3.1. External inspection:

In order to complete the external pre-flight inspection walk around the aircraft according to the drawing below.



3.2. In the cockpit

- Check aircraft documentation
- Verify that the start key is in OFF and not inserted in the ignition switch
- Verify the OPEN position of the fuel valve
- Switch ON the battery and check the fuel quantity, compare it with the planned fuel amount. Then switch the battery OFF.

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- Extend the flaps to 40° (in order to check outside)
- Check the correct and free movement of all the controls in their whole range.
- Check necessary cabin accessories (safety belts, first aid kit, fire extinguisher)

3.3. Left wing

- Flaps and ailerons, hinges, freedom of movement and backlash
- Wingtip and position lights conditions
- Pitot and static port openings, remove their cover
- Operation of the stall warning (under electrical power)
- Leading edge cleanliness and condition
- Left gear tyre condition and approximate pressure, strut condition and leakage of the brake system

3.4. Engine nacelle, canopy and nose gear

- Cleanliness of the canopy (clean with liquid and smooth cloth only to avoid scratches!)
- Measure the fuel quantity with the dipstick and compare it with the fuel gauge reading. Check the closing of the fuel cap.
- Take fuel sample at the bottom of the fuselage and check its cleanliness. Only first flight of the day and after each refueling.

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- Open the left engine nacelle door and check the level of the coolant and brake fluid to be within the markings. Check the engine area for any leakage and irregularities
- Propeller and the spinner condition. Open the right engine nacelle door and open the oil cap. Check the engine area for any leakage and irregularities. Turn the propeller (appr. 10 times with open oil tank cover, only for the first flight of the day) until the pumped oil gives bubbling sound.
- Check the level of the engine oil to be within the markings (min oil 2,5 l, max 3,5 l)
- Close the oil cap and the left and right nacelle door
- Exhaust and its tight fit
- Nose gear strut and wheel
- Check the towing fork is removed

3.5. Right wing

- Right gear tyre condition and approximate pressure, strut condition and leakage of the brake system
- Leading edge cleanliness and condition
- Wingtip and position lights conditions
- Flaps and ailerons, hinges, freedom of movement and backlash

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3.6. Tail section right side

- Surfaces cleanliness and condition
- Antennae presence and condition

3.7. Stabilizer surfaces

- Balance stabilizer free movements and no backlash in any direction
- Rudder surface free movement and no backlash in any direction
- Condition of the tail skid and bottom surface condition
- Beacon condition


3.8. Tail section left side

- Push rods through the service opening at the tail
- Surfaces cleanliness and condition

4. NORMAL OPERATION AND TRAFFIC CIRCUIT DESCRIPTION

4.1. Before engine start

- Record the time
- Canopy closed and locked
- Baggage secured


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- Seat belts - fastened
- Instruments - checked
- Battery, generator, alternator - OFF
- All electrical equipment - OFF
- Circuit breakers - checked
- ELT - ARMED
- CO detector - no color change
- Elevator trim – set for take-off
- Fuel shut off valve – open

➔ *RT: Gödöllő Traffic, HA-VOA engine start in front of CAVOK hangar*

4.2. Engine start

- Battery, generator – ON
- Fuel quantity - check for the task
- „Generator failure” light - illuminates
- Tail beacon light - illuminates
- Fuel pump – ON (fuel pressure rising)
- Choke – PULL (only at cold engine)
- Carburetor heating - OFF (pushed)
- Throttle - FULL IDLE (cold engine)

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- Toe brakes - applied
- Propeller area - CLEAR, Announce loud „Clear Prop”, look for confirmation from the surrounding people
- Ignition 1+2, Start

4.3. After engine start

- Oil pressure: in green (in 5-6 sec, if not, stop the engine IMMEDIATELY, ignition OFF)
- „Generator failure” & „Starter engaged” lights go out
- Alternator - ON
- Choke – slowly release and keep the RPM at 2500 with the throttle
- Fuel pump - OFF
- Radios, instruments - ON
- Warm up - 2500 RPM
- Oil heating - ON (keep on if OAT < 10°C during flight)
- Transponder – ON STBY (set squawk 7000)

4.4. Before taxi

- Altimeter - set to QNH (A/D elevation set)
- Canopy - closed and locked, both sides
- Controls – free, full and correct movement

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- Flaps – set to T/O (15°)
 - Elevator trim – verify T/O position
- *RT: Gödöllő Traffic, HA-VOA taxiing from CAVOK hangar to holding point RWY 13 / 31*

4.5. Taxi out

Taxi the A/C with the tailplane forcing the A/C's tail downwards (stick pulled in headwind or no wind, middle position or slightly pushed in tailwind), slow. Use idle power in straight lines, apply more power for initiating taxi and for the turns only. The nose wheel is free so use the rudder and differential brake for steering. Do not let the brakes fight with the engine.

4.6. Engine run-up

Verify:

- Oil pressure – in green
- Oil temperature – in at least yellow
- Cylinder head temperature – in green

Ignition check: engine warm, parameters in green, set RPM 4000. Ignition LEFT – BOTH – RIGHT – BOTH, the drop of each circuit should not be higher than

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300 RPM and the difference between the two side shall be less than 120 RPM.

The engine shall run smoothly with either circuit.

Carburetor heating check – set RPM to 4000, the RPM shall drop slightly and the carb temp shall rise.

- Full power – Check appr. 5400 RPM
- Idle – Check appr. 1400-1600 RPM

4.7. Before T/O at the holding point

- Fuel quantity – sufficient for the task according to fuel requirements
- Engine parameters – in green
- Altimeter – A/D elevation set
- Directional gyro – align with the magnetic compass
- Flaps – 15° checked
- Final approach – checked for incoming traffic
- Runway – checked, free
- Report – Ready for departure

→ *RT: Gödöllő Traffic, HA-VOA at holding point 13 / 31 line up and take-off, task: LH; RH traffic circuit / airspace work / cross-country flight with destination ZZZZ; name of the pilot in command; persons on board*

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4.8. When the RWY is clear or T/O cleared

- Fuel pump - ON
- LDG Light - ON
- Transponder – A,C,S mode (squawk 7000)
- Line up the plane

4.9. Take-off

Release the brake. Slightly pull the control stick to ease up the nose gear. Increase the PWR to appr. 4000 RPM simultaneously, apply RH rudder input. The aircraft has a high power to weight ratio therefore a tendency to swing to the left. As the aircraft accelerates through 40 KIAS and directional control can be maintained with the RH rudder apply full power (~5600 RPM). Rotate smoothly at around 50 KIAS. Start accelerating in a shallow climb and maintain 60 KIAS. RH rudder still needed to keep the aircraft balanced and prevent yaw.

4.10. Climb phase

At 200 ft AAL transition to climb phase

- Airspeed – 60 KIAS maintained by pitch
- Fuel pump – OFF
- LDG light – OFF



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- Flaps: retract to 0°
- Power: 5000 RPM
- Elevator trim: set for 60 KIAS climb

4.11. Turning to crosswind leg

At reaching 500 ft AAL turn to the crosswind leg. The speed in the turn shall be 65 KIAS so lower the nose to reach and maintain 65 KIAS during the turn. Fly the attitude accordingly until the nose points to the new direction. When the turn is completed raise the nose again for the 60 KIAS pitch. Consider wind conditions, this turn is normally less than 90° because of the wind correction. Recommended bank angle is less than normal bank angle.

4.12. Turning to downwind leg

This turn shall be initiated when the landing threshold can be seen looking 30° behind the airplane's lateral axis.

4.13. Transition to level flight

Shortly before reaching 1000 ft AAL lower the nose to maintain the circuit height (altitude). Let the aircraft to accelerate through 75 KIAS at climb power and then set 4400 RPM, trim aircraft for level flight.

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4.14. Downwind leg

Fly the aircraft parallel to the RWY centreline, correct for cross wind as necessary. At the beginning of downwind check fuel and engine parameters. When passing abeam of threshold, before the base turn: pull the carburettor heating, switch on the electric fuel pump and adjust power. Announce intention on the radio.

→ RT: Gödöllő Traffic, HA-VOA before turning left / right base for RWY 31 / 13 touch and go / full stop landing

4.15. Base turn

The position for the base turn is when the landing threshold can be seen 35° behind the lateral axis. This turn is a level turn and normally more than 90° due to the wind correction on the base leg. After the turn reduce PWR to 3000 RPM and maintain level flight until 70 KIAS is reached, then lower the nose for the descent attitude. Check the speed is below V_{FE} 85 KIAS and extend the flaps to 15° and maintain 70 KIAS. Do not let the speed go above V_{FE} 85 KIAS with the flaps extended to any setting.

4.16. Final

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The place for the final turn is when the landing threshold is 10° in front of the lateral axis (wind should be considered). The speed for this turn shall be 70 KIAS so before the turn lower the nose and turn into the extended RWY centerline (readjust the bank angle in turn if necessary to achieve the perfect position). Arrange the turn to roll out by 500 ft AAL latest. Keep the gliding speed and adjust the gliding angle with the flaps and the power setting.

4.17. Positioning the aircraft for landing

The landing flap shall be extended to 40° (FULL) earlier or later as the wind strength requires it. As the flap extended to full lower the nose to slow down and maintain 60 KIAS, trim the plane as necessary. On final at 300 ft AAL turn OFF the carburetor heat.

Normally the right hand shall be handling the control stick and the left hand controls the throttle. Adjust the power in order to point the nose to the aiming point approximately 30 m in front of the threshold mark that is appr. 50 m in front of the touch down zone. With increasing power raise the nose and when reducing the power lower the nose thus keeping the airspeed at 60 KIAS.

Reaching 3-5 m height reduce the throttle to idle and break the angle of the

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approach. Start the flare at the main wheels 30-50 cm from the ground. In case of crosswind bank into the wind and keep the direction with applying opposite rudder so that the plane will not move sideways from the landing axis. Land on the main wheels first (on the lower one first in crosswind), let the nose wheel gently touch the ground after them and keep it eased by holding the stick slightly pulled while rolling out. Control the roll out with the rudder and neutral the aileron as the speed drops.

4.18. Go around procedure

In case the landing can't be completed safely (due to other traffic, car or personnel on the RWY / the A/C is too high or low for the safe landing / the weather is not suitable for the landing / wind / RWY is not visible) a go around must be performed. Apply full power, maintain RWY track, verify the carburetor heat is OFF. At the same time stop the descent, pitch up for climb attitude (appr. 8° up) when the aircraft starts to climb retract the flap slowly to 15° T/O position, maintain 65 KIAS then proceed to fly a normal traffic circuit.

4.19. Touch and go

After touch down maintain the RWY direction with the rudder and put the nose gear down gently. hold the control stick with the left hand and retract the flap to

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15° T/O position. Change the control handling back to the right hand then apply full power smoothly and continue the take off.

4.20. Full stop landing

In case of full stop landing let the A/C decelerate. On grass RWYs keep the nose gear eased up in the air (pulled), on concrete RWY let the nose gear down gently and control the RWY direction with the rudder. When the speed is under control and low enough, apply careful pedal braking (bouncing will start if the brake action is abrupt or the rolling speed is high enough. Release the brakes and keep the stick pulled in this situation.). Then vacate the RWY to the appropriate direction and report it.

→ *RT: Gödöllő Traffic, HA-VOA RWY 13 / 31 vacated to the left / right, taxiing to CAVOK hangar / to refueling place.*

4.21. Taxi in

When RWY is vacated (mind the minimum RWY occupancy) during taxi retract the landing flap, turn fuel pump and the landing light OFF, transponder to STBY and set squawk 7000.

4.22. Before engine shut down

On hot days run the engine for 1-2 min at idle to cool it down. Turn OFF the

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radio, artificial attitude, gyro instruments and equipment and the alternator.

4.23. Shut down

Turn the ignition key to OFF then switch off the battery and generator. Pull the key out from the ignition switch. Record shut down time. In case the next crew of the aircraft is not apparent nor anticipated, install the pitot cover, lock control stick with the seatbelts, put chocks to block the wheels, cover canopy. The parking brake may also be used.

4.24. Aero AT-3 R100 Traffic circuit diagram (not to scale)

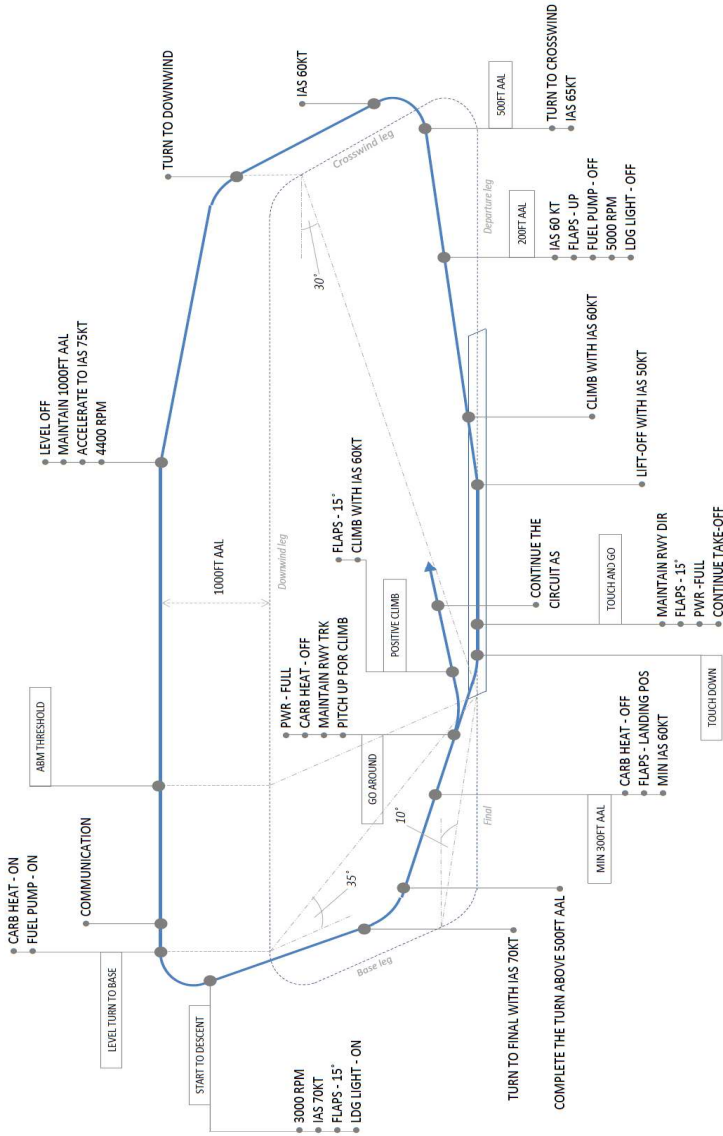


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5. FLIGHT PHASE TRANSITION PROCEDURES

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5.1. Transition from climb to level flight:

Climb:

- Speed: 60 KIAS
- PWR: 5000 RPM

Lower the nose to level attitude position (horizon's position), let the plane to accelerate to 75 KIAS and then set the power back to 4400 RPM. Reduce the right rudder input in a harmonic manner during this maneuver to maintain the ball in the middle.

5.2. Transition from level flight to climb

Level flight:

- V/S: 0
- PWR 4400 RPM

Raise the nose to the climb attitude (horizon position), simultaneously increase the power to 5000 RPM adjust the speed to 60 KIAS. Apply right rudder input when giving power to maintain the ball centered.



5.3. Transition from level flight to descent

Level flight:

- V/S: 0
- PWR 4400 RPM

Pull the carburetor heating and switch the electric fuel pump on. Reduce the power to 3000 RPM. Maintain level flight ($VS=0$) by slowly lifting the airplane's nose until the speed reduces to 70 KIAS, then lower the nose to descend attitude while maintaining 70 KIAS. Some left rudder may be required to keep the ball centered.

5.4. Transition from descent to level flight

Descent:

- Speed: 70 KIAS
- PWR: 3000 RPM
- Carburetor heating: ON
- Electric fuel pump: ON

Push the carburetor heating in. Apply power to 4400 RPM (right rudder will be needed in power setting change) and simultaneously raise the nose to the level flight attitude and maintain zero vertical speed. Use the elevator trim as necessary, switch the electric fuel pump off.

6. AIRCRAFT DATA, LIMITATIONS

Description	KIAS
Nose gear rotation speed V_R (Rotate)	45 kts
Take-off speed Normal climb speed Short field, flaps 15°, speed until 50 ft AGL	60 kts 54 kts
Normal climb speed flaps CLOSED	60 kts
Best Angle of Climb Speed - V_X flaps 15°	54 kts
Best Rate of Climb Speed - V_Y	65 kts
Best Glide Speed (Full Gross weight)	60 kts
Stalling Speed <i>Most forward center of gravity</i> Idle PWR - flaps CLOSED - (V_{S1}) Idle PWR - flaps FULL - (V_{S0})	52 kts 44 kts
Approach Speed Normal approach - flaps CLOSED Normal approach - flaps FULL Short field approach - flaps FULL	65 kts 60 kts 55 kts
Maximum Flaps Extended Speed - V_{FE}	85 kts
Maneuvering Speed - V_A	112 kts
Maximum Structural Speed - V_{NO}	112 kts
Never Exceed Speed - V_{NE}	127 kts
Maximum cross-wind	12 kts



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Description	Values
Maximum Take-off / Landing Weight	<i>582 kgs</i>
Standard empty weight	<i>350 kgs</i>
Max Useful Load	<i>230 kgs</i>
Maximum baggage compartment load (total) 1. left side (large) 2. right side (small)	<i>30 kgs 20 kgs 10 kgs</i>
Center of Gravity limits <i>(from the wing leading edge)</i> 409 - 480 kgs 480 - 582 kgs	<i>0,203 - 0,394 m 0,267 - 0,394 m</i>
Load limits in flight Flaps - CLOSED Flaps - 40°	<i>+3,8 g – -1,5 g + 2 g – 0 g</i>
Oil capacity Full Load Oil temperature Normal range Max temperature Oil pressure Min pressure Normal range Max pressure	<i>3,5 l 90 - 110 °C 130 °C 0,8 bar 2 - 5 bar 7 bar</i>
Fuel Maximum load Usable	<i>RON 95 73,5 l 70 l</i>
Maximum engine PWR (HP)	<i>98,5 HP</i>
RPM Max RPM Take-off Max Continuous Idle	<i>5800 RPM 5500 RPM 1400-1600 RPM</i>

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8. EMERGENCY PROCEDURES

This chapter contains a brief list only about the airplane emergency procedures. It is mandatory to become thoroughly familiar with the emergency procedures before operating this aircraft. For complete and detailed information refer **AFM Section 3 EMERGENCY PROCEDURES**.

8.1. ENGINE FIRE ON GROUND


In case of engine fire on ground take the following steps below:

- Fuel valve – SHUT
- Throttle – FULL OPEN
- Ignition switch – OFF
- Electrical equipment – OFF
- Battery and generator – OFF
- Fire extinguisher – TO BE USED

8.2. ENGINE FIRE IN FLIGHT

In case of engine fire in flight

- Maintain airspeed – IAS = 120 km/h / 75 mph / 65 kts
- Fuel valve – PULL SHUT
- Throttle – FULL OPEN
- Ignition switch – OFF
- Battery and generator – OFF
- Cabin canopy vents – SHUT

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- Side-slip - opposite to the fire, to blow it out – PERFORM
- When the engine stops – PERFORM EMERGENCY LANDING

CAUTION!

AFTER AN ENGINE FIRE DO NOT TRY TO RE-START THE ENGINE

8.3. IN CASE OF FIRE IN THE ELECTRICAL SYSTEM

- Maintain airspeed – IAS = 120 km/h / 75 mph / 65 kts
- Electrical equipment – OFF
- Fire extinguisher (if fire is in the cabin) – TO BE USED
- Cabin canopy vents – KEEP OPEN
- If the fire persists, decide upon a place for landing


8.4. ENGINE FAILURE DURING TAKE-OFF

- Maintain airspeed – IAS = 112 km/h / 70 mph / 60 kts
- Fuel pump – OFF
- Fuel valve – SHUT
- Throttle – IDLE
- Ignition switch – OFF
- Battery and generator – OFF
- Landing: ahead avoiding obstacles, if any

8.5. ENGINE FAILURE IN-FLIGHT

Fuel pressure drop, engine power drop

- Fuel pump – ON

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- Fuel Valve – Check open
- Fuel quantity – To be checked

Excessive engine vibration

- Carburetor heating – Pull ON
- Fuel Pump – ON

Exceeding the cylinder head temperature

- Temperature of the exhaust gases for comparison – To be checked
- Over-speeding the engine – Reduce the RPM
- Exceeding the maximum oil temperature – oil leaking, low oil QTY
- The oil pressure drops below the permissible minimum

CAUTION!

IN ALL OF THE ABOVE CASES, REDUCE THE POWER TO THE MINIMUM POSSIBLE, FLY TO THE NEAREST AIRFIELD, AND - BE PREPARED FOR PRECAUTIONARY LANDING

8.6. EMERGENCY LANDING

Gliding

- Flap – Closed
- Speed – 65 KIAS
- Throttle – IDLE
- Gliding ratio (no PWR) – 8

Precautionary landing

- Landing place – IDENTIFY



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- Flap – FULL
- Speed – 55 KIAS
- Seat belts – Firmly fasten
- Electrical equipment – OFF
- Canopy – UNLOCK
- Shortly before touch down – Fuel valve closed
- Battery and Generator – OFF
- Ignition – OFF
- The flare shall be done on top of the vegetation and pull the stick at touch down

8.7. ENGINE RESTARTING IN-FLIGHT

- Speed – 65 KIAS
- Fuel quantity – CHECK
- Fuel valve – OPEN
- Electrical fuel pump – ON
- Throttle – IDLE or 10 %
- Choke - cold engine – OPEN
- Windmilling propeller – Ignition 1+2
- Stopped propeller – Starter operate

8.8. RECOVERING FROM UNINTENTIONAL SPIN

- Throttle – IDLE
- Rudder – Opposite to airplane rotation - APPLY
- Control stick – Neutral
- Ailerons – Neutral

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- **Wing flaps – Retract**
When the airplane stops to rotate

- **Rudder – Neutral**
- **Control stick – Gentle proceed to level flight**
- **Throttle – Set for level flight**

WARNING!

INTENTIONAL SPINNING IS PROHIBITED

9. REVISION QUESTIONS

1. Wingspan of the Aero AT-3:

- a. 7,55 m
- b. 8,55 m
- c. 9,55 m

2. VNE (IAS) value of this airplane:

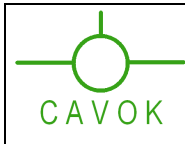
VNE – Maximum never exceed airspeed. This is a limit speed, which cannot be exceeded in any conditions.

- a. 127 KT
- b. 117 KT
- c. 112 KT

3. VA (IAS) value of this airplane:

VA - Above this speed, rapid or full displacement of the control surfaces may in certain circumstances result in exceeding the maximum permissible loads of the structure.

- a. 112 KT
- b. 117 KT
- c. 127 KT



4. VFE (IAS) value:

VFE - Maximum airspeed with wing flaps extended. This is the maximum permitted airspeed of the aeroplane with wing flaps extended.

- a. 85 KT
- b. 112 KT
- c. 65 KT

5. Yellow sector in the airspeed indicator:

- a. Between 85 KT and 112 KT
- b. Between 85 KT and 127 KT
- c. Between 112 KT and 127 KT

6. Maximum take-off weight of the airplane:

- a. 562 kg
- b. 600 kg
- c. 582 kg

7. Empty weight of the airplane:

Weight of the equipped aeroplane, with unusable fuel and full amount of operational agents (oil, cooling agent and hydraulic fluid).

- a. 358 kg
- b. 482 kg
- c. 409 kg

8. During flight the total weight of the airplane must not be less than:

- a. 582 kg
- b. 350 kg
- c. 409 kg


9. In-flight CG is moving in this airplane:

Centre of Gravity (CG) – Imaginary point on the aeroplane. The aeroplane suspended at this point is in equilibrium.

- a. Aft
- b. Forward

10. Maximum load in the luggage compartment:

- a. 20 kg
- b. 10 kg
- c. 30 kg

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11. Less load in the luggage compartment is moving the CG:

- a. Forward
- b. Aft

12. Pilot weight 80 kg, passenger weight 75 kg, luggage compartment load 30 kg, can be this flight executed with full fuel amount on board?

- a. Yes, the above loading sample is below the MTOW
- b. No, the above loading sample exceeds the MTOW

13. Maximum permissible load factors when flaps are retracted:

- a. Between 0 g and +2 g
- b. Between -1,5 g and +3,8 g
- c. Between -1,5 g and +3,5 g

14. Maximum permissible load factors when flaps are extended:

- a. Between -1,5 g and +3,8 g
- b. Between -1,5 g and +3,5 g
- c. Between 0 g and +2 g

15. Before flight to check it outside flaps can be set to:

- a. Take-off position
- b. Fully retracted position
- c. Fully extended position

16. Oil pressure normal range of operation:

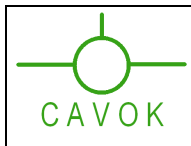
- a. Between 2,0 and 5,0 bar
- b. Between 2,0 and 3,5 bar
- c. Between 2,5 and 3,5 bar

17. Normal range of oil quantity:

- a. Between 2,0 and 3,0 litres
- b. Between 2,5 and 3,5 litres
- c. Between 2,0 and 3,5 litres

18. To specify the amount of fuel on board before a flight you have to check:

- a. Check both the measurement stick and the fuel quantity gauge and compare
- b. The fuel quantity with the measurement stick built into the fuel cap
- c. The value of the fuel quantity gauge in the cockpit



19. Consumable fuel of this airplane:

- a. 68,5 litres
- b. 73,5 litres
- c. 65,0 litres

20. Total fuel capacity of the aeroplane:

Total fuel capacity is the sum of consumable fuel and unusable fuel

- a. 73,5 litres
- b. 70,0 litres
- c. 68,5 litres

21. The reserve fuel signal lamp starts to light when consumable fuel in the fuel tank contains:

- a. 3,5 litres
- b. 15,0 litres
- c. 10,0 litres

22. VY (IAS) value with flaps retracted:

VY - Best rate of climb

- a. 65 KT
- b. 54 KT
- c. 60 KT

23. VX (IAS) value with flaps extended to take-off position:

VX - Maximum angle of climb

- a. 54 KT
- b. 60 KT
- c. 65 KT

24. VS1 (IAS) value in a turn with 60° bank angle and flaps retracted:

VS1 – Stalling speed, or minimum airspeed of steady flight, at which the aeroplane is steerable in any other configuration than the landing configuration.

- a. 70 KT
- b. 65 KT
- c. 50 KT

25. VS0 (IAS) value of the airplane with flaps extended fully:

VS0 – Stalling speed, or minimum airspeed of steady flight, at which the aeroplane is steerable in the landing configuration.

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- a. 44 KT
- b. 54 KT
- c. 39 KT

26. VS1 (IAS) value of the airplane with flaps retracted:

VS1 – Stalling speed, or minimum airspeed of steady flight, at which the aeroplane is steerable in any other configuration than the landing configuration.

- a. 50 KT
- b. 54 KT
- c. 46 KT

27. VS1 (IAS) value in a turn with 30° bank angle and flaps in take-off position:

VS1 – Stalling speed, or minimum airspeed of steady flight, at which the aeroplane is steerable in any other configuration than the landing configuration.

- a. 49 KT
- b. 39 KT
- c. 44 KT

28. Maximum allowed bank angle is:

- a. 70 degrees
- b. 60 degrees
- c. 75 degrees

29. Before take-off electronic fuel pump must be switched:

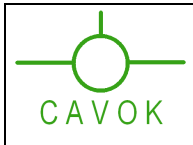
- a. AUTO
- b. ON
- c. OFF

30. Maximum allowed crosswind component during take-off and landing:

- a. 11,7 KT
- b. 13,7 KT
- c. 15,7 KT

31. After start-up engine warm-up RPM is:

- a. 2500 RPM
- b. 3000 RPM
- c. 4000 RPM



32. Ailerons and elevators are controlled by:

- a. Push rods
- b. Cables

33. RPM value when performing ignition check before take-off is:

- a. 3000 RPM
- b. 4000 RPM
- c. 5000 RPM

34. Maximum allowed RPM drop while performing ignition check:

- a. 300 RPM
- b. 180 RPM
- c. 120 RPM

35. Maximum allowed RPM difference between the two side while performing ignition check:

- a. 150 RPM
- b. 300 RPM
- c. 120 RPM

36. Carburetor heating control knob in the middle console:

- a. Blue colored rectangle shaped knob
- b. Brown colored rectangle shaped knob
- c. Yellow colored circle shaped knob

37. Oil heating control knob in the middle console:

- a. White colored circle shaped knob
- b. Brown colored rectangle shaped knob
- c. Yellow colored circle shaped knob

38. Choke control knob in the middle console:

- a. Yellow colored circle shaped knob
- b. Brown colored rectangle shaped knob
- c. Blue colored rectangle shaped knob

39. The RPM gauge in this airplane is showing:

- a. The engine RPM value
- b. The propeller RPM value

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40. The airspeed gauge is showing the following value:

- a. Indicated airspeed in knots (KIAS)
- b. True airspeed in knots (TAS)
- c. Ground speed in knots (GS)

41. During taxi control stick must be:

- a. Set strictly to neutral position
- b. Pushed forward
- c. Pulled aft

42. Approximate fuel consumption per hour while practicing traffic circuit:

- a. 13 litres/h
- b. 15 litres/h
- c. 17 litres/h

43. Average fuel consumption per hour during en-route flight (4400 RPM):

- a. 17 litres/h
- b. 15 litres/h
- c. 19 litres/h

44. The glide ratio of the airplane is:

- a. 9
- b. 11,7
- c. 8

45. Operation of the fuel shut-off valve:

- a. Pull it fully out to cut off fuel flow
- b. Rotate it clockwise 90° to cut off fuel flow
- c. Push it fully in to cut off fuel flow

46. Intentional spinning with is airplane:

- a. Is prohibited
- b. Is allowed with aerobatic flight experience
- c. Is allowed with an instructor



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47. The flaps can be set to:

- a. 0° (closed); 15° (take-off); 30° (fully extended)
- b. 0° (closed); 15° (take-off); 40° (fully extended)
- c. 0° (closed); 10° (take-off); 40° (fully extended)

48. After start-up within 5-6 sec oil pressure doesn't build up:

- a. Immediate turn off the engine
- b. This is standard, monitor oil pressure indicator for a minute
- c. Set 2500 RPM to warm-up engine

49. During taxi the following method is obligatory:

- a. Taxi slow with minimum required power and pulled control stick
- b. Taxi dynamically with required power and pulled control stick
- c. Taxi slow with minimum required power

Answers:

- | | | | |
|-------|-------|-------|-------|
| 1.a. | 11.a. | 21.c. | 31.a. |
| 2.a. | 12.b. | 22.b. | 32.a. |
| 3.a. | 13.b. | 23.a. | 33.b. |
| 4.a. | 14.c. | 24.a. | 34.a. |
| 5.c. | 15.c. | 25.c. | 35.c. |
| 6.c. | 16.a. | 26.c. | 36.a. |
| 7.a. | 17.b. | 27.a. | 37.b. |
| 8.c. | 18.a. | 28.b. | 38.a. |
| 9.a. | 19.a. | 29.b. | 39.a. |
| 10.c. | 20.b. | 30.a. | 40.a. |

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