

CAVOK

CAVOK Aviation Training Ltd.

Flight Procedures
Cessna 172M type

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1. Foreword

This guide has been prepared to provide pilots with information for the flight procedures based on the **Pilot Operating Handbook**. It is the responsibility of the pilot to study carefully the POH, a deep knowledge of airplane features, fuel and limitations is essential for operating the airplane safely. Subtle differences in this document compared to the POH are company based procedures that ensures the improvement of flight safety.

2. Flight preparation

2.1. Aircraft weight and CG definition, performance calculation

Based on the calculation method in the POH define the aircraft **take-off weight** and CG position according the actual traffic load and ramp fuel. Also define the **landing weight** and CG position calculating with the estimated fuel consumption.

Section 5 PERFORMANCES in the **POH** provides all necessary data for an accurate and comprehensive planning of flight activity from take-off to landing. Given information in that section is sufficient to plan the flight with required precision and safety.

3. Pre-flight check

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

3.1. In the cockpit

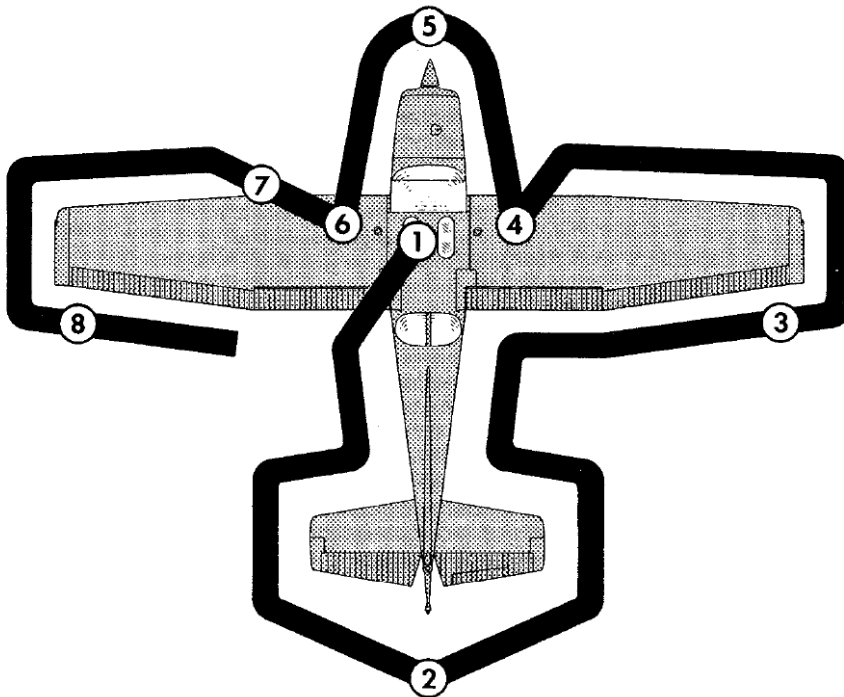
1. Check the **A/C documentation**
2. Check **safety belts** condition
3. Verify that **ignition switch** is in **OFF** and the starter **key** is not inserted

to the ignition, it shall be placed onto the top of dashboard

4. Battery switch - ON, check the fuel quantities and compare it with the planned fuel amount
5. Extend the flaps to FULL (in order to check it outside)
6. Battery - OFF
7. Fuel selector valve - BOTH
8. Control locks - REMOVED
9. Check necessary cabin accessories (first aid kit, fire extinguisher, altimeter conversation table)

3.2. Aircraft walk-around:

To perform the aircraft walk-around, carry out the checklist according to the figure shown below:





2. EMPENNAGE

1. Tail tie-down (if applicable) - DISCONNECT
2. Control surfaces - CHECK freedom of movement, security and free play

3. RIGHT WING Trailing Edge

1. Aileron - CHECK freedom of movement, security and free play
2. Right flaps – Flap and hinges visual inspection

4. RIGHT WING

1. Wing tie-down (if applicable) – DISCONNECT
2. Leading and trailing edges, wing surfaces – CHECK for damages
3. Main wheel tire - CHECK for proper inflation, condition
4. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade
5. Fuel quantity - CHECK with the dipstick and visually for desired level and compare with the gauge value
6. Fuel Filler Cap – SECURE
7. Check right wing-tip lights condition

5. NOSE

1. Engine oil level - CHECK, do not operate with less than four quarts. Fill to eight quarts for extended flight
2. Before first flight of the day and after each refueling, pull out strainer drain knob for about two seconds to clear fuel strainer of



possible water and sediment. Check strainer drain closed. If water is observed, the fuel system may contain additional water, and further draining of the system at the strainer, fuel tank sumps, and fuel selector valve drain plug will be necessary

3. Propeller and spinner - CHECK for proper condition and security
4. Landing light(s) - CHECK for condition and cleanliness
5. Carburetor air filter - CHECK for restrictions by dust or other foreign matter
6. Nose wheel strut and tire - CHECK for proper inflation, tire condition
7. Front wheel shock absorber – CHECK for correct suspension
8. Nose tie-down (if applicable) - DISCONNECT
9. Static source opening (left side of fuselage) - CHECK for stoppage

6. LEFT WING

1. Main wheel tire - CHECK for proper inflation and tire condition
2. Leading and trailing edges, wing surfaces – CHECK for damages
3. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment and proper fuel grade
4. Fuel quantity - CHECK with the measurement stick and visually for desired level and compare with the gauge value

NOTE

Measurement stick shows correct value in case of aircraft standing on flat surface

5. Fuel filler cap – SECURE



6. Check left wing-tip lights condition

7. LEFT WING Leading Edge

1. Pitot tube cover - REMOVE and check opening for stoppage
2. Fuel tank vent opening - CHECK for stoppage
3. Stall warning opening - CHECK for stoppage. To check the system, place a clean handkerchief over the vent opening and apply suction; a sound from the warning horn will confirm system operation
4. Wing tie-down (if applicable) - DISCONNECT

8. LEFT WING Trailing Edge

1. Aileron - CHECK for freedom of movement, security and free play
2. Right flaps – Flap and hinges visual inspection
3. Check equal flap extension on both side

3.3. Cockpit preparation before engine starting

1. Pre flight inspection - COMPLETE
2. Adjust seat position and safety belt
3. Flight controls – CHECK free and logical movements
4. Circuit breakers – CHECK all IN
5. CO detektor - No color change
6. Pitch trim – Set for T/O position
7. All electrical equipment - OFF

CAUTION

The avionics power switch must be OFF during engine start to prevent possible damage to avionics



4. Traffic circuit description

This chapter is an extract from **POH Section 4 NORMAL PROCEDURES** containing information about the flight procedures for each phase of a normal traffic circuit. For detailed information refer to that section. As a visual aid a simple traffic circuit illustration can be found on [page 17](#).

4.1. Engine start up

- Seat belts (pilot and passengers) – Fastened
- Doors and windows – Closed and locked
- Baggage – Secured
- All electrical equipment – OFF
- Toe brakes – Pressed
- Carburetor heating – OFF
- Throttle – ¼ Inch Open
- Mixture – RICH
- Prime - AS REQUIRED (3 to 4 strokes if engine is cold; none if engine is warm)
- Master switch – ON
- Beacon - ON
- Propeller area – Visually check CLEAR, announce loud „Clear Prop?!!”
- Ignition – START
- Verify OIL pressure is within the green range immediately after start (if it does not rise within 30 seconds, stop the engine, mixture IDLE CUT-OFF)

4.2. After engine start

- Throttle – 1000 RPM
- Oil pressure – CHECK
- Avionics master switch - ON
- Electrical equipment - ON



- Warm-up engine – SET 1500 RPM

4.3. Before taxi

- Transponder – STBY (set code 7000)
- Doors and windows – CHECK closed
- Flaps – UP
- Gyro instruments - SET

→ *RT: Gödöllő Info, HA-JDA at CAVOK hangar, taxiing to holding point RWY 13; 31*

4.4. Taxi out

- Brakes – CHECK
- Steering – CHECK
- Control yoke – Fully pulled

NOTE

Taxi slowly! Use minimal power in straight lines, apply more power for initiating taxi and for the turns only. Avoid applying throttle and brakes simultaneously.

4.5. Engine run-up

Ignition magnetos check:

- Engine warm, parameters in green
- Throttle - Set 1700 RPM
- LEFT, BOTH, RIGHT, BOTH - The drops shall not be higher than 125 RPM / side and the difference between the two side shall be less than 50 RPM. The engine shall run smooth with either circuit.

Mixture check:



- When pulling lever check RPM initially rising then suddenly dropping. Pull the lever full back in as soon as the RPM starts to drop.
- Carburetor heating check:

- At 1700 RPM, pull selector fully out, it shall drop RPM

Engine run-up test:

Perform the run-up only after min 4 hrs ground time! Practically it is done only once a day.

- Full power on ground – Check appr. 2100 RPM
- Idle – 1000 RPM

4.6. Before T/O at the holding point

- Warm engine and the oil pressure – Verify
- Seat belts – Fastened
- Doors and windows – Closed
- Avionics and instruments – Checked
- Primer – Secured
- Master switch – ON
- Ignition – BOTH
- Carburetor heating – OFF
- Trim – Set for T/O
- Flaps – Set 10° (4 sec)
- Fuel quantity – Checked
- Fuel sel valve - BOTH
- Flight controls - Check free and logical movements
- Altimeter – Set for QNH (threshold elevation)
- Align directional gyro with the magnetic compass
- Check for any possible arriving traffic on final
- Check the runway for any departing traffic, crossing vehicle or people
- Report to the instructor – Ready for departure



→ *RT: Gödöllő info, HA-JDA at holding point Rwy 31; 13, ready for departure, lining up and taking-off, task: LH; RH traffic circuit; airspace work; cross-country flight with destination XXXX*

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

- Landing light – ON
- Transponder – A,C,S mode
- Line up runway

4.8. Take-off

Release the brake. Slightly pull the yoke to ease up the nose gear. Increase power simultaneously to FULL, keep the aircraft on runway centerline using the wheel steering and the rudder. Accelerate on ground to 60 MPH (50 KIAS). Accelerate over the runway to 80 MPH (70 KIAS), then climb with that speed.

4.9. Climbing

- Maintain 80 MPH (70 KIAS) with pitch attitude
- At 200 ft AAL
 - Flaps – UP
 - Throttle – Reduce by 50 RPM
 - Landing light – OFF
- Trim the A/C for climb

4.10. Turning to crosswind leg

NOTE

Before each turn check visually for any traffic in the direction of turn

When reaching 500 ft AAL turn to the crosswind leg. The speed in the turn shall be 85 MPH (75 KIAS) so lower the nose to reach and maintain 85 MPH



(75 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 80 MPH (70 KIAS) equivalent attitude. This turn is normally less than 90° because of the wind correction.

4.11. Turning to downwind leg

This turn shall be initiated when the landing threshold can be seen looking 30° behind the lateral axis. Take care of the wind correction on the downwind leg if there is crosswind so that the A/C flies parallel to the RWY centerline.

4.12. Transition to level flight

Shortly before reaching 1000 ft AAL lower the nose to maintain the circuit height. Let the A/C accelerate to 90 MPH (80 KIAS) and then set **2100** RPM and trim the plane for level flight.

4.13. Downwind leg

Fly the A/C parallel to the RWY centerline, correct for crosswind as necessary. At the beginning of downwind check fuel and engine parameters. When passing the abeam of the landing threshold and before the base turn indicate intention on the radio.

→ RT: Gödöllő info, HA-JDA turning left; right base RWY 31; 13 touch and go; full stop landing

4.14. Turning to base leg

The place 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 **Carburetor heat - ON**, reduce the power to **1500** RPM and maintain level flight until 80 MPH (70 KIAS) is reached then lower the nose for the descent attitude. When



necessary extend the landing flaps to 15° and maintain 80 MPH (70 KIAS).

4.15. Final turn

The place for the final turn is when the landing threshold can be seen **10° in front of the lateral axis**. The speed for this turn shall be 85 MPH (75 KIAS) so before the turn lower the nose for the 85 MPH (75 KIAS) attitude and fly until the new desired direction. Arrange the turn to roll out **by 500 ft AAL latest**. Increase the power slightly if necessary in order to reduce the descent rate. Raise the nose again for the 80 MPH (70 KIAS) attitude and maintain on the final.

4.16. Positioning the A/C for landing

The landing flap shall be extended to FULL **earlier or later as the wind strength** requires it. Turn landing light ON. At min. 300 ft AAL flaps have to be extended to landing position lower the nose to maintain 70-75 MPH (60-65 KIAS), trim the A/C as necessary. **At 200 ft AAL Carburetor Heating - OFF**.

Normally the left hand shall be handling the flight control and the right hand controls the power! 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. When increasing power raise the nose and when reducing the power lower the nose so that the speed remains 70-75 MPH (60-65 KIAS).

Reaching 3-5 m height reduce the power to idle and break the angle of the approach. Start the flare at 30-50 cm from the ground. In case of crosswind align the A/C axis with the rudder to fly parallel with the RWY and bank into the wind so that the A/C will not move sideways from the centerline. Land on the lower wheel in crosswind then lower the other wheel and control the roll out with the rudder and neutral the aileron as the speed drops.



4.17. Go around

In case the **landing can't be completed safely** (due to other traffic, car or personnel on the RWY or the A/C is too high or low for the safe landing or the weather is not suitable for the landing wind or RWY is not visible) **go around must be flown**. Apply **full power** maintain RWY track, verify **carburetor heating** is **OFF**. At the same time stop the descent, **pitch up for climb attitude** (appr. 8° up) when the A/C starts to climb (**verify** positive climb on VSI) retract the **flap slowly to 10° (T/O)** maintain 80 MPH (70 KIAS) than continue the circuit as described.

4.18. Touch and go

After touch down **maintain the RWY direction** with the rudder and fly the nose gear down gently. Let the aircraft stabilize on ground. Retract **flaps to 10° (T/O) position**. Apply **full power smoothly** and continue the take-off.

4.19. 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 A/C is fully stable on the ground apply pedal smooth pedal braking. Then vacate the RWY to the appropriate direction and report it.

→ *RT: Gödöllő Info, HA-JDA RWY 13; 31 vacated to the left; right. Taxiing to CAVOK hangar.*

4.20. Taxi in

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



4.21. Before engine shut down

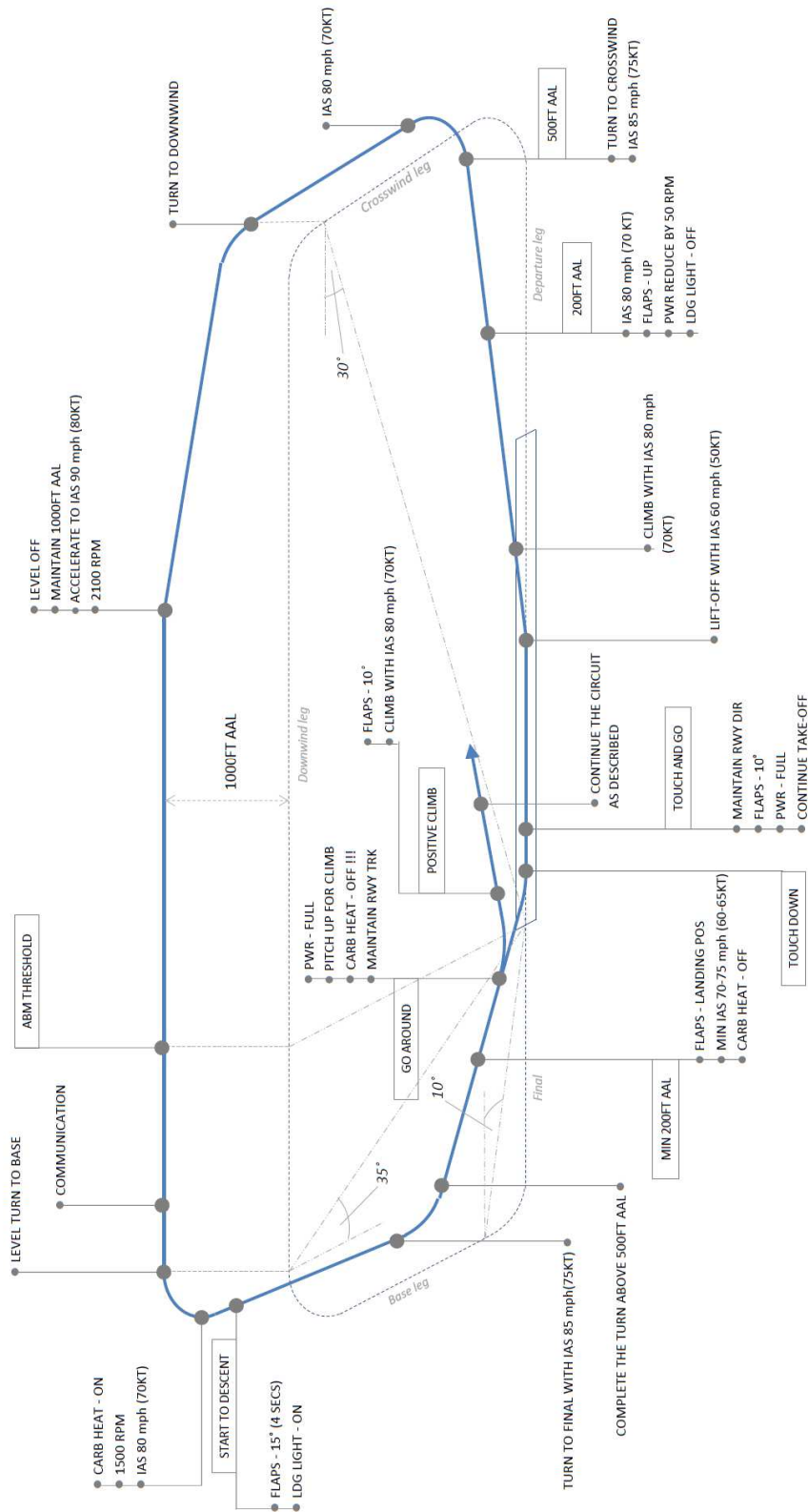
On hot days run the engine for 1-2 min at 1000 RPM to cool it down. Turn off the electrical equipment. Turn the avionics master switch OFF.

4.22. Shut down

Set throttle 1300 RPM, set mixture to fully lean. After the engine stopped turn the ignition key to OFF than turn OFF the beacon and the Master switch. Pull the key out from the ignition switch. Record the shut down time. In case the A/C does not continue the flight shortly install the pitot and canopy covers, insert the control lock and put chocks to block the wheels. The parking brake may also be used.



4.23. Cessna 172M traffic circuit illustration (not to scale)





5. Flight phase transition procedures

5.1. Transition from climb to level flight:

Climb:

- Speed: **80 MPH (70 KIAS)**
- power: **2200 RPM**

Lower the **nose to level** attitude position, let the plane to **accelerate to 90 MPH (80 KIAS) and then set the power to 2000 RPM**. Reduce the right rudder input during this maneuver to maintain the ball in the middle.

5.2. Transition from level flight to climb

Level flight:

- V/S: 0
- power **2000 RPM**

Raise the nose to the climb attitude, simultaneously **increase the power to 2200 RPM adjust the speed to 70 MPH (60 KIAS)**. Apply right rudder input when giving power to maintain the ball centered.

5.3. Transition from level flight to descend

Level flight:

- V/S: 0
- power **2000 RPM**

Pull the carburetor heating. Reduce the power to **1300 RPM**. Maintain level flight until the speed reduce to **70 MPH (60 KIAS)**, than lower the nose to descend attitude while maintain **70 MPH (60 KIAS)**. Some left rudder may require to center the ball



5.4. Transition from descend to level flight

Descent:

- Speed: **70** MPH (60 KIAS)
- power: **1300** RPM
- Carburetor heating: ON

Push the carburetor heating in. Apply power to **2000** RPM and simultaneously raise the nose to the level flight attitude and maintain 0 vertical speed. Trim the elevator as necessary.



6. Normal checklist

BEFORE START

SEAT BELTS.....FASTENED
DOORS.....CLOSED
ELEC EQUIPMENTOFF
BRAKES.....SET
CARB HEATOFF
THROTTLE..... 1/4" OPEN
MIXTURE..... RICH
PRIMEIF NECESSARY
MASTER..... ON
BEACON ON
PROPELLER AREA FREE
IGNITION KEY..... START

AFTER ENGINE START

THROTTLE..... 1000 RPM
OIL PRESSURE CHECK
ELEC EQUIPMENT ON
ENGINE WARM-UP..... 1500 RPM

ENGINE TEST RUN

ENGINE INSTRUMENTS..... CHECK
THROTTLE..... 1700 RPM
IGNITERS..... 1, 2, MAX DROP 125; DIFF 50
MIXTURE..... CHECK
CARB HEAT CHECK
FULL THROTTLE.....CHECK (6 SEC)
ENGINE IDLE 1000 RPM

BEFORE TAKE OFF

PRIMER.....SECURED
CARB HEAT.....OFF
TRIM.....SET
FLAPS..... 10°
FUEL SEL VALVE.....BOTH
CONTROLS..... FREE
LANDING LIGHT ON

AFTER TAKE-OFF (200' AAL)

FLAPS.....UP
THROTTLE..... REDUCE BY 50 RPM
LANDING LIGHT OFF

BEFORE LANDING

FLAPS 30° OR FULL
CARB HEAT ON



7. Cessna 172M aircraft data, limitations

Description	Values
Maximum Take-off / Landing Weight	2300 lbs
Standard empty weight	1419 lbs
Max Useful Load	881 lbs
Maximum baggage compartment load	120 lbs
Center of Gravity limits (Normal Category) (Datum: lower portion of the front face of firewall)	35.0 inches aft of datum at 1950 lbs, or less, with straight line variation to 35.5 inches aft of datum at 2000 lbs.
Forward limit Aft limit	40.5 inches
Load limits in flight (Normal Category)	
Flaps - Up Flaps - Down	+3,8 g – -1,52 g + 3,0 g – 0 g
Oil capacity Min load Full load Oil temperature Normal range Max temperature Oil pressure Min pressure (below 1400 P-RPM) Normal range (above 1400 P-RPM) Max pressure	8 QTS 4 QTS 9 QTS 100°F - 245°F 245°F 25 psi 60 - 90 psi 100 psi
Fuel Total load (Two tanks) Usable (Two tanks)	AVGAS 100LL 42 gal (159 l) 38 gal (142 l)
Maximum engine power (HP)	150 HP
RPM Max RPM Take-off Max Continuous Idle	2350-2450 RPM 2400 RPM 1000 RPM



Description	CAS
Rotation Speed (in take-off, VR) (2300 lbs)	48 MPH (42 KTS)
Take-off speed	
Normal climb speed - Flaps 10°	70 MPH (60 KTS)
Short field T/O - Flaps 10°, speed until 50 ft AGL	65 MPH (56 KTS)
Normal climb speed	
Flaps - Up	70 MPH (60 KTS)
Best Angle of Climb Speed - VX	
Flaps - Up	65 MPH (56 KTS)
Best Rate of Climb Speed - VY	
Flaps - Up	76 MPH (66 KTS)
Best Glide Speed	79 MPH (69 KTS)
Stalling Speed (Bank angle 0°)	
Idle power - Flaps - Up (VS1)	46 MPH (40 KTS)
Idle power - Flaps - 10° (VS1)	40 MPH (35 KTS)
Idle power - Flaps - Down - (VSO)	35 MPH (30 KTS)
Approach Speed	
Normal approach - Flaps - T/O	76 MPH (66 KTS)
Final approach - Flaps - Down	59 MPH (51 KTS)
Maximum Flaps Extended Speed - VFE	
Flaps - T/O	111 MPH (97 KTS)
Flaps - Down	77 MPH (67 KTS)
Design Maneuvering Speed - VA	110 MPH (96 KTS)
Maximum Structural Cruising Speed - VNO	126 MPH (110 KTS)
Never Exceed Speed - VNE	158 MPH (138 KTS)
Maximum cross-wind	22 KTS



8. Cessna 172M 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 **POH Section 3 EMERGENCY PROCEDURES**.

8.1. AIRSPEEDS FOR EMERGENCY OPERATION

Engine failure after take-off:

Flaps - Up	75 MPH (65 KIAS)
Flaps - Down	70 MPH (60 KIAS)

Maneuvering speed:

2300 Lbs.....	110 MPH (96 KIAS)
1950 Lbs.....	99 MPH (89 KIAS)
1600 Lbs.....	90 MPH (80 KIAS)

Maximum glide:

2300 Lbs.....	79 MPH (69 KIAS)
---------------	------------------

Precautionary landing with engine power 70 MPH (60 KIAS)

Landing without engine power:

Flaps - Up	75 MPH (65 KIAS)
Flaps - Down	70 MPH (60 KIAS)



8.2. ENGINE FAILURES

8.2.1. ENGINE FAILURE DURING TAKE-OFF RUN

1. Throttle - IDLE
2. Brakes - APPLY
3. Flaps - RETRACT
4. Mixture - IDLE CUT-OFF
5. Ignition Switch - OFF
6. Master Switch – OFF

8.2.2. ENGINE FAILURE IMMEDIATELY AFTER TAKE-OFF

1. Airspeed – 75 MPH (65 KIAS) with Flaps – Up; 70 MPH (60 KIAS with Flaps - Down
2. Mixture - IDLE CUT-OFF
3. Fuel Selector Valve - OFF
4. Ignition Switch - OFF
5. Wing Flaps - AS REQUIRED
6. Master Switch - OFF

8.2.3. ENGINE FAILURE DURING FLIGHT

1. Airspeed – 75 MPH (65 KIAS)
2. Carburetor Heat - ON
3. Fuel Selector Valve - BOTH
4. Mixture - RICH
5. Ignition Switch - BOTH (or START if propeller is stopped)
6. Primer - IN and LOCKED



8.3. FORCED LANDINGS

8.3.1. EMERGENCY LANDING WITHOUT ENGINE POWER

1. Airspeed 75 MPH (65 KIAS) with Flaps – Up; 70 MPH (60 KIAS) with Flaps - Down
2. Mixture - IDLE CUT-OFF
3. Fuel Selector Valve - OFF
4. Ignition Switch - OFF
5. Wing Flaps - AS REQUIRED (40° recommended)
6. Master Switch - OFF
7. Doors - UNLATCH PRIOR TO TOUCHDOWN
8. Touchdown - SLIGHTLY TAIL LOW
9. Brakes - APPLY HEAVILY

8.3.2. PRECAUTIONARY LANDING WITH ENGINE POWER

1. Wing Flaps - 20°
2. Airspeed – 70 MPH (60 KIAS)
3. Selected Field - FLY OVER, noting terrain and obstructions, then retract flaps upon reaching a safe altitude and airspeed
4. Avionics Power Switch and Electrical Switches - OFF
5. Wing Flaps - 40° (on final approach)
6. Airspeed – 70 MPH (60 KIAS)
7. Master Switch - OFF
8. Doors - UNLATCH PRIOR TO TOUCHDOWN
9. Touchdown - SLIGHTLY TAIL LOW
10. Ignition Switch - OFF
11. Brakes - APPLY HEAVILY



8.3.3. DITCHING

1. Radio - TRANSMIT MAYDAY on 121.5 MHz, giving location and intentions and SQUAWK 7700
2. Heavy Objects (in baggage area) - SECURE OR JETTISON
3. Approach - High Winds, Heavy swells - INTO THE WIND, Light Winds, Moderate Swells - PARALLEL TO SWELLS
4. Wing Flaps - 20° - 40°
5. Power - ESTABLISH 300 FT/MIN DESCENT AT 65 MPH (55 KIAS)

NOTE

If no power is available, approach at 65 KIAS with flaps up or at 60 KIAS with 10° flaps.

7. Cabin Doors - UNLATCH.
8. Touchdown - LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT
9. Face - CUSHION at touchdown with folded coat.
10. Airplane - EVACUATE through cabin doors. If necessary, open window and flood cabin to equalize pressure so doors can be opened
11. Life Vests and Raft - INFLATE

8.4. FIRES

8.4.1. DURING START ON GROUND

1. Cranking - CONTINUE, to get a start which would suck the flames and accumulated fuel through the carburetor and into the engine



If engine starts:

1. Power - 1700 RPM for a few minutes
2. Engine - SHUTDOWN and inspect for damage

If engine fails to start:

3. Throttle - FULL OPEN
4. Mixture - IDLE CUT-OFF
5. Cranking - CONTINUE
6. Fire Extinguisher - OBTAIN
 - a. Master Switch - OFF
 - b. Ignition Switch - OFF
 - c. Fuel Selector Valve - OFF
9. Fire - EXTINGUISH using fire extinguisher, wool blanket, or dir
10. Fire Damage - INSPECT, repair damage or replace damage components or wiring before conducting another flight

8.4.2. ENGINE FIRE IN FLIGHT

1. Mixture - IDLE CUT-OFF
2. Fuel Selector Valve - OFF
3. Master Switch - OFF
4. Cabin Heat and Air - OFF (except overhead vents)
5. Airspeed – 115 MPH (100 KIAS) (If fire is not extinguished, increase gliding speed to find an airspeed which will provide an incombustible mixture)
6. Forced Landing - EXECUTE (as described in Emergency Landing Without Engine Power)



8.4.3. ELECTRICAL FIRE IN FLIGHT

1. Master Switch - OFF
2. Avionics Power Switch - OFF
3. All Other Switches (except ignition switch) - OFF
4. Vents/Cabin Air/Heat - CLOSED
5. Fire Extinguisher - ACTIVATE (if available)

WARNING

After discharging an extinguisher within a closed cabin, ventilate the cabin. If fire appears out and electrical power is necessary for continuance of flight:

6. Master Switch - ON
7. Circuit Breakers - CHECK for faulty circuit, do not reset
8. Radio Switches - OFF
9. Avionics Power Switch - ON
10. Radio/Electrical Switches - ON one at a time, with delay after each until short circuit is localized
11. Vents/Cabin Air/Heat - OPEN when it is ascertained that fire is completely extinguished

8.4.4. CABIN FIRE

1. Master Switch - OFF
2. Vents/Cabin Air/Heat - CLOSED (to avoid drafts)
3. Fire Extinguisher - ACTIVATE (if available)

WARNING

After discharging an extinguisher within a closed cabin, ventilate the cabin.



4. Land the airplane as soon as possible to inspect for damage

8.4.5. WING FIRE

1. Navigation Light Switch - OFF
2. Pitot Heat Switch (if installed) - OFF
3. Strobe Light Switch (if installed) - OFF

NOTE

Perform a sideslip to keep the flames away from the fuel tank and cabin, and land as soon as possible using flaps only as required for final approach and touchdown.

8.5. ICING

8.5.1. INADVERTENT ICING ENCOUNTER

1. Turn pitot heat switch ON (if installed)
2. Turn back or change altitude to obtain an outside air temperature that is less conducive to icing
3. Pull cabin heat control full out and open defroster outlet to obtain maximum windshield defroster airflow. Adjust cabin air control to get maximum defroster heat and airflow
4. Open the throttle to increase engine speed and minimize ice build-up on propeller blades
5. Watch for signs of carburetor air filter ice and apply carburetor heat as required. An unexplained loss in engine speed could be caused by carburetor ice or air intake filter ice. Lean the mixture for maximum RPM, if carburetor heat is used continuously
6. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site
7. With an ice accumulation of 1/4 inch or more on the wing leading



- edges, be prepared for significantly higher stall speed
8. Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness
 9. Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach
 10. Perform a landing approach using a forward slip, if necessary, for improved visibility
 11. Approach at 75-85 MPH (65 to 75 KIAS) depending upon the amount of the accumulation
 12. Perform a landing in level attitude

8.5.2. STATIC SOURCE BLOCKAGE

(Erroneous Instrument Reading Suspected)

1. Alternate Static Source Valve - PULL ON
2. Airspeed - Consult appropriate calibration tables in POH Section 5

8.6. LANDING WITH A FLAT MAIN TIRE

1. Approach - NORMAL
2. Touchdown - GOOD TIRE FIRST, hold airplane off flat tire as long as possible

8.7. ELECTRICAL POWER SUPPLY SYSTEM MALFUNCTIONS

8.7.1. OVER-VOLTAGE LIGHT ILLUMINATES

1. Avionics Power Switch - OFF



2. Master Switch - OFF (both sides)
3. Master Switch - ON
4. Over-Voltage Light - OFF
5. Avionics Power Switch - ON

If over-voltage light illuminates again:

6. Flight - TERMINATE as soon as possible

8.7.2. AMMETER SHOWS DISCHARGE

1. Alternator - OFF
2. Nonessential Radio/Electrical Equipment - OFF
3. Flight - TERMINATE as soon as practical



9. Unit conversions

1 knots = 1 NM/h = 1,853 km/h

1 lbs (librae = pounds) = 0,4536 kg

1 qts (US quart) = 0,946 l

1 gal (US gallon) = 3,78 l

1 in (inch) = 2,54 cm

1 psi (pounds per square inch) = 6894,76 Pa = 6,89476 kPa = 0,0689476 bar

1 inHg (Hg inch) = 25,4 mmHg = 3386,39 Pa

$n F^{\circ} = ((n-32)*5) / 9C^{\circ}$

10. The traffic circuit particularities at LHGD (Gödöllő) A/P

The flap retraction shall be done at altitude 300 ft AAL (1000 ft QNH)

Turn to crosswind leg

- RWY 31 LH circuit: overhead the highway crossing
- RWY 13 RH circuit: overhead the high tension cable at altitude 500 ft AAL (1200 ft QNH)

Turn to downwind leg

- RWY 31 LH circuit: at the antenna tower
- RWY 13 RH circuit: at the valley line

The circuit altitude is 1700 ft QNH.

Turn to base leg

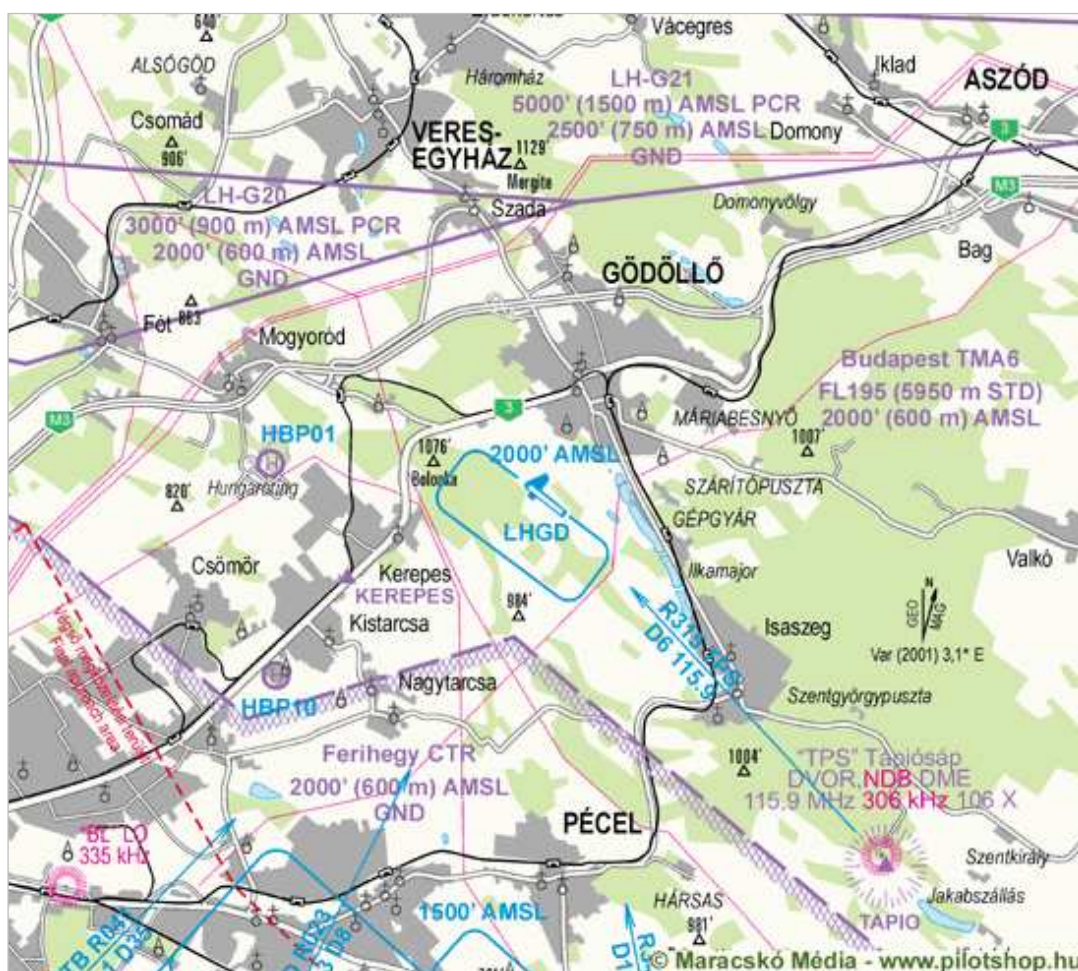
- RWY 31 LH circuit: overhead the high tension cable
- RWY 13 RH circuit: at the antenna tower

Turn to final shall be completed by 1200 ft QNH latest.

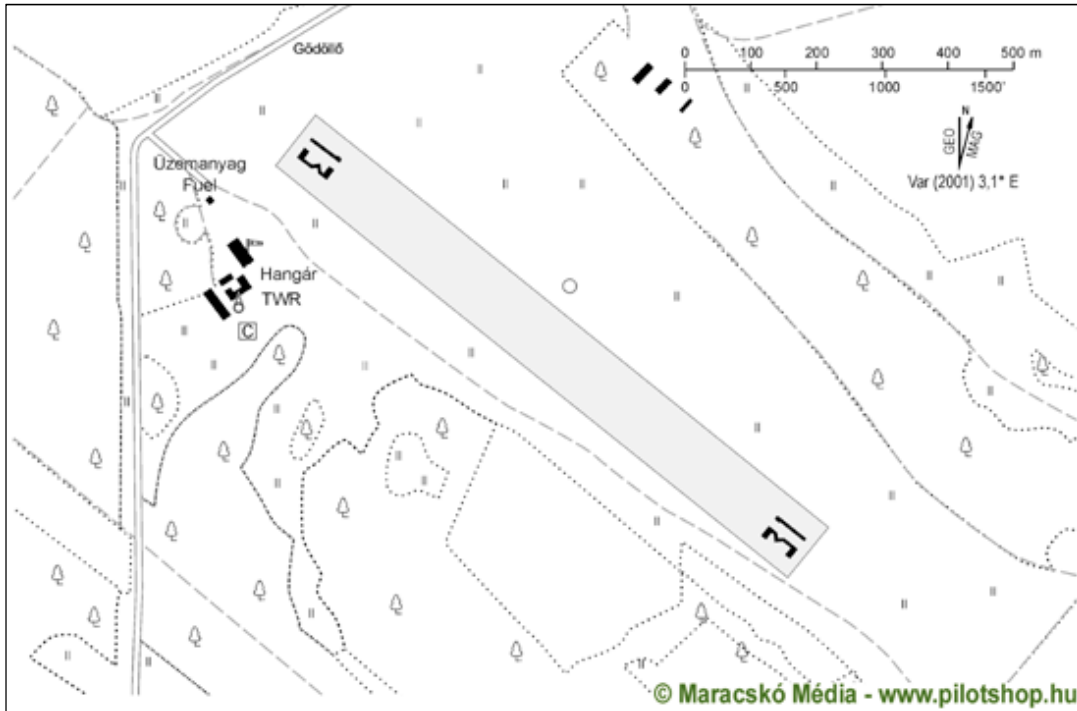
10.1. LHGD (Gödöllő) A/P data

ICAO code:	LHGD
Name:	Gödöllő
Location:	2 km / 1NM SSW Gödöllő
Position:	N473425 E0191957
Elevation:	218 m / 715 ft
Callsign:	Gödöllő INFO
Frequency:	119,05 MHz
Traffic circuit:	31LH; 13RH; 1000 ft AAL
Airfield category:	Non public aerodrome
Operation:	SR-SS
NVFR:	N/A
IFR:	N/A

10.2. VFR map



10.3. A/P map



10.4. Aerial photo





10.5. A/P limitations

RWY	Size (m)	Surface	TORA (m)	LDA (m)	Load	Lighting
13 / 31	1300 x 60	grass	1300 x 60	950 x 60	15 / 5	N / A

Remarks:

- Only day VFR
- The A/P can be used after permitted by the operator except for urgency or emergency
- Establish contact 2 - 4 minutes flight time prior reaching the airfield at Gödöllő INFO (119,05 MHz)
- The A/P directory can be checked at: www.lhgd.hu site

Warnings:

- Displaced threshold
- Sheeps on the RWY
- Budapest TMA over the airfield: max permitted altitude 2000 ft AMSL
- Ferihegy Intl. Airport (LHBP) CTR 2 NM SW from the airfield
- Possible activities: parachuting; winch started paragliding; remote controlled model flying

OPS: +36-20-410-6517