

M20C Emergency Procedures

Engine Failure Immediately After Takeoff

- 1) If sufficient runway remains for normal land straight ahead.
- 2) If insufficient runway remains, maintain a safe airspeed, and make shallow turns to avoid obstructions.
- 3) If you have gained sufficient altitude a restart, proceed with next checklist.

Engine Failure During Flight

- 1) Airspeed.....100 MPH
- 2) Carb Heat ON
- 3) Fuel Selector.....Switch Tanks*
- 4) Boost Pump..... ON
- 5) Mixture RICH
- 6) Fuel Gauges..... Check for Cause
- 7) Ignition....."L" then "R" back to both
- 8) Transponder.....7700
- 9) Radio.....121.5 Mayday**

FORCED LANDING W/O POWER

- 1) Airspeed.....100 MPH
- 2) Mixture IDLE CUT-OFF
- 3) Fuel Selector OFF
- 4) Ignition SwitchOFF
- 5) Seat Belts and Harness.....Tighten
- 6) Flaps.....As Required Within gliding dist of field
Full Flaps Down.....80MPH
- 7) Master OFF
- 8) Door. UNLATCH
- 9) Touchdown Slight tail Low (min. speed)
- 10) Brakes APPLY HEAVILY

Engine Fire During Start

- 1) Cranking CONTINUE
- 2) Power.....1700RPM(if engine starts)

If engine start is unsuccessful, continue cranking for 2 or 3 min with throttle full open.

- 3) Mixture.....IDLE Cut – OFF
- 4) Fuel selectorOFF
- 5) Aircraft.....Abandon If fire Continues

Smother flames with fire extinguisher, seat cushion, blanket, or loose dirt. If practical, remove carburetor air filter if it's ablaze.

Engine Fire in Flight

- 1) **Mixture** IDLE CUT-OFF
- 2) **Fuel Selector** OFF
- 3) **Master** OFF
- 4) Cabin Heat.....OFF/CLOSED

If fire is not extinguished, increase glide speed in attempt to find an airspeed that will provide incombustible mixture.

- 5) Magneto.....OFF
- 6) Emergency Landing EXECUTE

Electrical Fire

- 1) **Master** OFF
- 2) Electrical switches (except ignition) OFF
- 3) Vents/Windows.....Open to Vent Smoke
- 4) Cabin Heat.....OFF

Land as soon as practical

FRONT RANGE FLIGHT SCHOOL

MOONEY M20C

V SPEEDS (@ S.L.)

Vso.....	57 MPH
Vs1.....	67 MPH
Vr.....	65 MPH
Vx.....	80 MPH
Vy.....	100 MPH (-1 mph per 1000 ft)
Va	132 MPH
Vfe.....	100 MPH
Vle.....	120 MPH
Glide (clean).....	100 MPH

Radio Frequencies

CFO ATIS	119.025
CFO Ground	124.7
CFO Tower/CTAF	120.2
DEN APP	128.250
DEN FSS	122.4
BKF ATIS	119.675
BKF Tower	121.0
Emergency	121.5
DEN VOR	117.9
FQF VOR	116.3
DVV VOR	114.7

Light Gun Signals

Signal	Ground	In Flight
Green	Takeoff	Land
Flashing	Taxi	Return to land
Red	Stop	Give Way
Flashing	Taxi Clear	DO NOT LAND
Alt Red & Green	EXTREME CAUTION	
Flashing White	Return To Starting Point	

PREFLIGHT INSPECTION

1) Tach & Hobbs	Check/Match
2) Documents (AROW)	Checked

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|-----------------------------------|------------------------------------|
| 3) Ignition | OFF |
| 4) Master | ON |
| 5) Fuel Quantity | CHECK |
| 6) Anti-Collision / Strobe Lights |Check Operation |
| 7) Flaps |Down for Inspection |
| 8) Master | OFF |
| 9) Engine fuel Strainer |Drain 4 Sec |
| 10) Fuel Selector Valve |Fullest Tank |
| 11) Baggage Door |LOCKED |
| 12) Control Surfaces | Secure & Free |
| 13) Nav. Lights |Assure Unbroken |
| 14) Antennas | CHECK |
| 15) Tires |Condition & Brake pads(32psi) |
| 16) Fuel (Quantity & Sumps) | CHECKED |
| 17) Oil |Check 6 qt Min |
| 18) Fuel Strainer | CHECKED |
| 19) Air vents & Static Port | CHECKED |
| 20) Propeller | CHECK security/nicks |
| 21) Engine/Alternator | CHECKED |
| 22) Windshield...Clean, | Remove Chocks |

BEFORE START

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|--------------------------|-------------------|
| 1) Preflight Inspection |Complete |
| 2) Passenger Briefing | BRIEFED |
| 3) Seats/Seatbelts/Doors | Adjust & Locked |
| 4) Circuit Breakers |Check |
| 5) Fuel Selector Valve |Fullest Tank |
| 6) Avionics Switch |OFF |
| 7) Brakes |TEST & SET |

ENGINE START

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|---------------------------|---------------------------------|
| 1) Mixture | RICH |
| 2) Propeller |High RPM |
| 3) Master |ON |
| 4) Boost Pump |ON |
| 5) Throttle |Pump twice to prime engine |
| 6) Throttle |Open ¼ Inch |
| 7) Carb Heat |OFF/COLD/IN |
| 8) Cowl Flaps |Open |
| 9) Parking/Propeller Area | CLEAR |
| 10) Ignition Switch | START |
| 11) Throttle | 800-1000 RPM |
| 12) Oil Pressure/Temp | Green/Coming Up |
| 13) Ammeter | CHARGING |
| 14) Boost Pump |OFF |
| 15) Mixture | LEAN FOR TAXI |
| 16) Flaps | RETRACT |

BEFORE TAXI

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|---------------------|------------------|
| 1) Lights & Strobes |As Required |
| 2) NAV Light (ADSB) |ON |
| 3) Avionics/Radios |ON - Set |

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|----------------|------------|
| 4) Weather | RECORD |
| 5) Altimeter | SET |
| 6) Transponder | 1200 & ALT |

TAXI

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|--------------|-----------------------|
| 1) Brakes | TEST on ROLL |
| 2) Clearance | AS REQUIRED (Runway?) |

BEFORE TAKEOFF

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|------------------|--------------------|
| 1) Parking Brake | Set & Verified Set |
| 2) Fuel Selector |Fullest Tank |
| 3) Mixture |Rich |
| 4) Run-up | |

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|---------------------------|--------------------------------|
| a. Throttle | 1900 RPM |
| b. Mixture | Lean for Best Power |
| c. Magnetos | CHECK (125Max/50Diff) |
| d. Propeller |Cycle x 3 |
| e. Carb Heat | ON(RPM DROP) |
| f. Throttle IDLE |CHECK (still runs)1200RPM |
| g. Gauges |Oil T&P/Ammeter |
| h. Carb Heat |OFF |
| i. Throttle Friction Lock |Adjust |

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|---------------------------|---------------------|
| 5) Circuit Breakers | CHECKED |
| 6) Flight Controls |Free & Correct |
| 7) Flight Instruments | SET |
| 8) Navigation Instruments | As Required |

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|-------------------------------------|--------------------------------------|
| 9) Radios | SET (Tower/CTAF) |
| 10) Transponder | ALTITUDE |
| 11) Elevator Trim |Set for Takeoff (see Indicator) |
| 12) Flaps |Set for Takeoff (see Indicator) |
| 13) Lights | AS NEEDED(Strobes/LNDG/NAV) |
| 14) Seatbelts & Harnesses | SECURE |
| 15) Clear floor for Gear Retraction | |
| 16) Doors & Windows | CLOSED & LOCKED |
| 17) Before Takeoff Briefing | BRIEF |
| 18) Parking Brake | RELEASE |

NORMAL TAKEOFF

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|-----------------------|---------------------------------|
| 1) Clearance | As REQUIRED |
| 2) Boost Pump |ON |
| 3) Lined up on runway | Heels Floor/No Brakes |
| 4) Throttle |FULL FORWARD/OPEN(2600RPM) |
| 5) Elevator | Rotate (65MPH) |
| 6) Climb Speed |105 MPH |

ENROUTE CLIMB

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|------------------|--------------------|
| 1) Airspeed |115-120 MPH |
| 2) Power |25" &2500 RPM |
| 3) Retract Gear | |
| 4) Retract Flaps | |
| 5) Fuel Pump Off | |

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|---------------|--------------------------|
| 6) Mixture |Rich (until 3000ft) |
| 7) Cowl Flaps |Open as Required |

CRUISE

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|----------|---------------------------------------|
| 1) Power |15" to 23" MP & 2200 to 2450 RPM |
|----------|---------------------------------------|

DO NOT Operate Between 2150-2300 RPM below 15"hg

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|------------------------|-------------------|
| 2) Cowl Flaps |Closed |
| 3) Trim | ADJUST |
| 4) Mixture | LEAN AS NECESSARY |
| 5) Fuel Selector Valve | As REQUIRED |

DESCENT

- | | |
|------------------|-------------------|
| 1) Fuel Selector |Fullest Tank |
| 2) Mixture |Rich |
| 3) Power |As Desired |
| 4) Carb Heat |As Required |

BEFORE LANDING

- | | |
|-------------------------|----------------------------|
| 1) Seat Belts & Harness |Secure |
| 2) Fuel Selector |Fullest Tank |
| 3) Boost Pump |On |
| 4) Mixture |Rich |
| 5) Cowl Flaps |Closed |
| 6) Carb Heat |On |
| 7) Landing Gear |Down (Below 120 MPH) |
| 8) Propeller |High RPM |

NORMAL LANDING

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|----------------------|-------------------------------|
| 1) Approach Airspeed |80-90MPH |
| 2) Flaps |0° to 33° (below 100MPH) |
| 3) Approach Airspeed |80-.90MPH (flaps down) |

AFTER LANDING

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|----------------|------------------|
| 1) Cowl Flaps |Open |
| 2) Flaps |Up |
| 3) Boost Pump |Off |
| 4) Carb Heat |Cold |
| 5) Transponder |ALT |
| 6) Lights |As Required |

SECURING AIRPLANE / SHUTDOWN

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|---|--------------------------|
| 1) Parking Brake |Set |
| 2) Radios & Electrical Equipment & lights |Off |
| 3) Throttle | 1000 RPM |
| 4) Mixture | IDLE CUT-OFF |
| 5) Ignition | OFF (after engine stops) |
| 6) Master | OFF |
| 7) HOBBS & TACH | RECORDED |