

## INITIAL

Weather & Den. Alt.  
Weight & Balance  
Performance Req.  
Flight Plan – File  
Papers – A.R.O.W.  
Fuel – Both  
Control Lock  
Gear Lever – Down  
Master – On  
Gear Lights – Green  
Flaps – Extend  
Pitot Heat – Test  
Stall Indicator – Test  
Lights – Int. / Ext.  
Fuel Gauges – True  
Master – Off

EXTERIOR SUMMARY  
*After Geographical Check*

Fuel Quantity  
Fuel Quality  
Caps/Drains/Vents  
Engine / Oil / Belt  
Prop / Air Intake  
Exhaust System  
Surfaces & Controls  
Pitot & Static Ports  
Gear / Tires / Brakes  
Antennas  
Ties/Chocks/Towbar  
Baggage Door  
Final Walk Around

## INTERIOR

Passenger Brief  
Hobbs / Tach Time  
Circuit Breakers  
Alternate Static  
Electric Trim  
Brakes – Pedal Test

## START

Seat Track/Back – Lock  
Cowl Flaps – Open  
Avionics – Off  
Autopilot – Off  
Carb Heat – Off  
Mixture – Full Rich  
Prop – High RPM  
Throttle – 1-2 Pumps  
(Fuel Pump On If Hot)  
Brakes  
Prop – Clear  
Master – On  
Beacon – On  
Mags – Start  
Oil Pressure  
Fuel Pump – Off  
Lights – As Req.  
Mixture – As Req.

## PRE-TAXI / TAXI

Seat Belts / Harness  
Flaps – Up  
Heat / Vent / Defrost  
Avionics – On / Set  
ATIS / AWOS  
Altimeter – Set  
XPDR – Alt + Sqwk  
ADS-B – On  
Radio – Test  
Taxi Light – As Req.  
Brakes – Test  
Attitude Indic. – Test  
Turn Coord. – Test  
HSI/Compass – Test

## RUN-UP

Brakes – Set  
Fuel – Both  
Trim – Takeoff  
Flight Controls  
Instruments  
Mixture – Best Power  
Fuel Pump – On  
Pressure Increase  
Fuel Pump – Off

1800 RPM  
Mags (R & L) – Test  
Prop – Cycle  
Carb Heat – Test  
Vacuum  
Amps / Volts.  
Oil Pressure  
Oil Temp  
Idle – Check Closed  
Throttle Friction

## PRE-TAKEOFF

Flaps – 0°-10°  
Prop – High RPM  
Mixture – Best Power  
Carb Heat – Off *Or As Req.*  
Pitot Heat – As Req.  
HSI To Compass  
XPDR – Alt + Sqwk  
Doors / Windows  
Landing Light – On  
Strobes – As Req.  
Time – Note  
Brakes – Release  
*Abort Plan - Ready!*

## TAKEOFF

Full Throttle  
2700 RPM (Max)  
Manifold Pressure  
Oil Pressure  
Rotate \* **55** (63)  
Vy – **84** (97)  
Gear – Up  
Flaps – Up

## CLIMB

**85-95** (98-109)  
Throttle – 25" MP  
Prop – 2500 RPM  
Mixture – As Req.  
Instruments  
Cowl Flaps – As Req.  
Taxi/Land Light – Off  
Flight Plan – Open

## CRUISE

Throttle  
Prop  
Mixture  
Cowl Flaps  
Instruments  
HSI To Compass

## DESCENT

Throttle – MP As Req.  
Mixture – Richen  
Fuel – Both  
Carb Heat – As Req.  
Cowl Flaps – Close  
ATIS / AWOS  
Altimeter – Set  
Instruments  
HSI To Compass

## PRE-LANDING

Landing Light – On  
Autopilot – Off  
Seat Belts / Harness  
Mixture – Best Power  
Carb Heat – On  
Fuel – Both  
Gear – Down  
Flaps – As Req.

## LANDING

Gear – Down  
Flaps – 30° *Or As Req.*  
Prop – High RPM  
Speed \* **65** (75)

G. U. M. P. F. S.

## GO AROUND

Power – Full  
Carb Heat – Off  
Flaps – Approach  
Positive Rate Climb  
Gear – Up (As Req.)  
Flaps – Up  
Cowl Flaps – Open

## AFTER LANDING

Flaps – Up  
Carb Heat – Off  
Cowl Flaps – Open  
Strobes – Off  
Landing Light – Off  
Taxi Light – As Req.  
Pitot Heat – Off  
Mixture – As Req.  
Trim – Takeoff  
XPDR – Alt + Sqwk

## SECURING

ELT – Verify Silent  
Avionics – Off  
Mixture – Full Lean  
Mags – Off  
Master – Off  
Fuel – Left or Right  
Lights – Off  
Cowl Flaps – Close  
Hobbs / Tach Time  
Control Lock  
Chocks  
Tie Downs  
Pitot Cover  
Baggage Door  
Cabin Doors

## Close Flight Plan

\* Adjust Speed  
As Needed For  
Conditions

XWind • Max Demo'd – 15 (17)  
Vr • Rotation Speed – 55 (63)  
Vx • Best Angle Climb – 67 (77)  
Vy • Best Rate Climb – 84 (97)

Vs<sub>0</sub> • Stall with flaps – 42 (48)  
Vs • Stall w/o flaps – 50 (58)  
Best Glide (2300 lbs) – 68 (78)  
Best Glide (Full Gross) – 73 (84)

Va • Max Abrupt Ctrl (2300 lbs) – 99 (114)  
Va • Max Abrupt (Full Gross) – 106 (122)  
Vno • Max Structural Cruise – 145 (167)  
Vne • Never Exceed – 164 (189)

Vfe • 10° Flaps – 130 (150)  
Vfe • Full Flaps – 100 (115)  
Vlo • Max Gear Operate – 140 (161)  
Vle • Max Gear Extended – 164 (189)

	KNOTS (MPH)	FLAPS °	– NOTES –
<b>DEPARTURE</b>			
Rotation *	<b>55</b> (63)	0	Normal & Short Field: 0° Flaps. <b>63</b> (72) Until Clear
Best Angle Climb	<b>67</b> (77)	0	Soft / Rough Field or Minimum Ground Run: 10° Flaps.
Best Rate Climb	<b>84</b> (97)	0	
<b>CRUISE</b> (TAS -6,000')			
Economy	<b>117</b> (135)	0	21" MP – 2100 RPM – 7.7 GPH – 56%
Normal	<b>128</b> (147)	0	22" MP – 2300 RPM – 8.8 GPH – 65%
Maximum	<b>137</b> (158)	0	24" MP – 2400 RPM – 10.2 GPH – 77%
<b>ARRIVAL</b>			
Approach	<b>75</b> (86)	10-20	17" MP (Initially)
Short Final *	<b>65</b> (75)	30	Prop – High RPM

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Specs Are In: LBS, KIAS, Sea Level, Standard Day, Normal Category, Max. Gross Wt., No Wind, "Best Economy", New Engine. ( ) = MPH.  
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(IF UNABLE TO ABORT TAKEOFF)

## POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL

BEST GLIDE – 73 KIAS (84 MPH) (Full Gross Weight)

FUEL SELECTOR – OFF

MIXTURE – FULL LEAN / IDLE CUTOFF

FLAPS – DOWN

GEAR – AS REQUIRED

MASTER & MAGS – OFF (Unlatch Doors)

## POWER LOSS IN FLIGHT

BEST GLIDE – 73 KIAS (84 MPH) (Full Gross Weight)

CARB HEAT – ON (Also Supplies Alternate Air)

NOTE WIND DIRECTION & VELOCITY

PICK LANDING SITE

MIXTURE – FULL RICH

FUEL SELECTOR – CHECK / SWITCH / BOTH (Note Gauges)

FUEL PRIMER – LOCKED (Try Re-Priming)

MAGNETOS – CHECK ALL

MASTER – ON

## IF NO RESTART & TIME PERMITS

MAINTAIN BEST GLIDE

PROP – LOW RPM (Full Aft)

SQUAWK 7700

DECLARE EMERGENCY (TWR, APP, Unicom, 121.5)

FUEL SELECTOR – OFF

MIXTURE – FULL LEAN / IDLE CUTOFF

SEATBELTS / HARNESS

FLAPS – AS NEEDED (Full Flaps When Field Assured)

GEAR DOWN (Up If Very Rough or Soft Terrain)

MASTER & MAGS – OFF

UNLATCH DOORS

PROTECT BODY

## ELECTRICAL FIRE IN FLIGHT

ALL ELECTRICAL DEVICES + MASTER OFF (Mags On)

CLOSE VENTS, CABIN HEAT, & AIR

IF FIRE OUT – MASTER ON ONLY IF CRITICAL (Vents – Open)

THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME

RESET CIRCUIT BREAKER ONLY IF CRITICAL

## ENGINE FIRE IN FLIGHT

MIXTURE – FULL LEAN / IDLE CUTOFF

FUEL SELECTOR – OFF

MASTER – OFF

CABIN HEAT & AIR – OFF (Except Overhead Vents)

INCREASE AIRSPEED TO EXTINGUISH - LAND ASAP

## ENGINE FIRE DURING START

CONTINUE CRANKING ENGINE

IF START – RUN A FEW SECONDS - SHUTDOWN - INSPECT

IF NO START – IDLE MIXTURE CUTOFF & FUEL SELECTOR OFF

THROTTLE FULL OPEN – CRANK ENGINE FEW SECONDS

MASTER & MAGS – OFF

EVACUATE / FIRE EXTINGUISHER

## ICING

PITOT HEAT – ON

CARB HEAT – ON

CABIN HEAT & DEFROST – MAXIMUM

STRONGLY CONSIDER 180° TURN

ATTAIN HIGHER OR LOWER ALTITUDE

INCREASE ENGINE & PROP SPEED

FLAPS – NOT RECOMMENDED FOR LANDING

LAND FASTER AS NEEDED

## MANUAL GEAR EXTENSION

LANDING GEAR LEVER – DOWN

LANDING GEAR & GEAR PUMP CIRCUIT BREAKERS – IN

EMERGENCY HAND PUMP – EXTEND & PUMP APP. 35 CYCLES

STOP CYCLES WHEN BECOMES HEAVY

GEAR DOWN LIGHT – ON

PUMP HANDLE – STOW

## OTHER

**AMMETER w/EXCESS RATE OF CHARGE:** Alternator – Off, Pull C.B. / Nonessential Electric – Off / Terminate Flight A.S.A.P.

**LOW VOLTAGE:** Avionics Power Switch – Off / Alt. C.B. - In / Master – Off, then, Master – On / Ck. Volt Lt. Off / Avionics – On / If Illuminates Again: Alt. & Electric – Off / Terminate Flight A.S.A.P.

**RADIO OUT:** Check Circuit Breakers & VOLUME  
Recycle Alternator Switch  
If IFR & Still Out, Set XPDR To 7600.  
(Suggested For VFR If In B, C, D Airspace.)

**UNICOM:** 122.7 – 122.8 – 122.95 – 123.0 – 123.05  
**MULTICOM:** 122.9 (CTAF), 122.75, 122.85 (Air To Air)  
**FLIGHT WATCH:** 122.0

TOWER SIGNALS	ON GROUND	IN FLIGHT
Steady Green	Cleared For Takeoff	Cleared To Land
Flashing Green	Cleared To Taxi	Return For Landing
Steady Red	Stop	Yield & Continue Circling
Flashing Red	Taxi Clear of Landing Area	Airport Unsafe - Do Not Land
Flashing White	Return To Starting Point	N/A
Alternating Red & Green	Use Extreme Caution	Use Extreme Caution

\* Every Plane Has A Different Empty Weight And Useful Load  
Cessna 172 RG (Lycoming: O-360-F1A6, 180 HP)

\* **Empty Weight:**  LBS (Specific Plane Weight)  
\* **Max. Useful Load:**  LBS (Including Fuel @ 6 lbs/gal)  
**Max. Baggage Area:** 200 LBS (Included In Useful Load)  
**Max. T.O. Weight:** 2650 LBS

**Fuel Type:** 100 LL (Blue) / 100 (Green)  
**Usable Fuel:** 62 Gallons  
**Oil Capacity:** 8 Quarts (Minimum 5)  
**Electrical:** 24-28 VOLT / 60 AMP  
**Tire Pressure:** Nose - 40-50 PSI / Main - 60-68 PSI