

INITIAL

Weather & Den. Alt.
Weight & Balance
Performance Req.
Flight Plan - File
Papers - A.R.Q.W.
Fuel Shutoff Wired On
Fuel - Both
Control Lock
Master - On
Flaps - Extend
Pitot Heat - Test
Lights - Int. / Ext.
Fuel Gauges - True
Master - Off

EXTERIOR SUMMARY
After Thorough Geographical Check

Fuel Quantity
Fuel Quality
Caps/Drains/Vents
Engine / Oil / Belt
Prop / Air Intake
Exhaust System
Stall Indicator - Test
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

START

Seat Track/Back - Lock
Avionics - Off
Autopilot - Off
Cowl Flaps - Open
Carb Heat - Off
Mixture - Full Rich
Prop - High RPM
Throttle - Slight
Prime
Brakes
Prop - Clear
Master - On
Beacon - On
Mags - Start
Oil Pressure
Lights - As Req.
Mixture - As Req.

PRE-TAXI / TAXI

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

RUN-UP

Brakes
Fuel - Both
Trim - Takeoff
Flight Controls / AP
Instruments
Mixture - Best Power
1800 RPM
Mags - Test R-L-Both
Prop - Cycle
Carb Heat - Test
Aux Fuel Pump - Test
Vacuum
Amps / Volts
Oil Pressure
Oil Temp
Idle - Check Closed
Throttle Friction

PRE-TAKEOFF

Flaps - 10°-15°
Mixture - Best Power
Prop - High RPM
Carb Heat-Off *Or As Req.*
Pitot Heat - As Req.
XPDR - Alt + Sqwk
Heading Bug
Doors / Windows
Landing Light - On
Strobes - On
Time - Note
Brakes - Release

ABORT PLAN - READY!

TAKEOFF

Full Throttle
2700 RPM *Max*
Manifold Pressure
Oil Pressure
Rotate - * **52** (60)
Vy - **80** (92)
Flaps - Up

CLIMB

78-87 (90-100)
Throttle - 24" MP
Prop - 2500 RPM
Mixture - As Req.
Cowl Flaps - As Req.
Instruments
Taxi / Land Light - Off
Flight Plan - Open

CRUISE

Throttle
Prop
Mixture
Cowl Flaps - Close
Instruments

DESCENT

Throttle - MP As Req.
Mixture - Richen
Fuel - Both
Carb Heat - As Req.
Cowl Flaps - Close
ATIS / AWOS
Altimeter
Instruments

PRE-LANDING

Brakes - Pedal Test
Landing Light - On
Autopilot - Off
Seat Belt / Harness
Mixture - Best Power
Carb Heat - On
Fuel - Both
Flaps - As Req.

LANDING

Flaps - 30° *Or As Req.*
Prop - High RPM
* **63** (72)

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

GO-AROUND

Power - Full
Carb Heat - Off
Positive Rate Climb
Flaps - Retract Slowly
Cowl Flaps - Open

AFTER LANDING

Cowl Flaps - Open
Carb Heat - Off
Flaps - Up
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
Cowl Flaps - Close
Lights - Off
Hobbs / Tach Time
Secure Yoke/Brakes
Chocks / Tie Downs
Pitot Cover
Baggage Door
Cabin Doors

Close Flight Plan

* Adjust Speed
As Needed For
ConditionsCheck Your POH
For Notes / Cautions
Plus Manufacturer
For Revisions

XWind • Max Demo'd - 15 (17)	V_{S0} • Stall With Flaps - 44 (51)	Va • Max Abrupt Ctrl (2000 lbs) - 93 (107)	Vfe • 10° Flaps - 116 (134)
Vr • Rotation - 52 (60)	Vs • Stall w/o Flaps - 54 (62)	Va • Max Abrupt (Full Gross) - 104 (120)	Vfe • Full Flaps - 91 (105)
Vx • Best Angle Climb - 67 (77)	Best Glide (2000 lbs) - 66 (76)	Vno • Max Structural Cruise - 137 (155)	Emergency Descent - 87 (100)
Vy • Best Rate Climb - 80 (92)	Best Glide (Full Gross) - 74 (85)	Vne • Never Exceed - 161 (185)	

	KNOTS (MPH)	FLAPS °	- NOTES -
DEPARTURE			
Rotation *	52 (60)	10°	Short Field: 15° Flaps - 60 (69) Until Clear.
Best Angle Climb	67 (77)	0	Soft Field: 15° Flaps
Best Rate Climb	80 (92)	0	
CRUISE TAS - 7,500'			
Economy	104 (120)	0	19" MP - 2200 RPM - 7.5 GPH - 56%
Normal	116 (133)	0	21" MP - 2300 RPM - 8.9 GPH - 67%
Maximum	123 (141)	0	22" MP - 2500 RPM - 10.1 GPH - 75%
ARRIVAL			
Approach	74 (85)	10-20	17" MP (Initially)
Short Final *	63 (72)	30	Prop - High RPM

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Specs Are Approximate Because Of Environment & Plane Model
- Year Variables. Specs Are In: LBS, KIAS, Sea Level, Standard
Day, Normal Category, Max. Gross Weight, No Wind, Wheel
Pants, "Best Power", New Engine. () = MPH.

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VERTICAL SCALE = NAUTICAL MILES PER INCH: WAC = 14 SEC = 7 TAC = 3.5 NOS = 12 JEPP = 15 ELA = 12

~ IMPORTANT... FREQUENTLY CHECK OUR WEBSITE & MANUFACTURER FOR UPDATES ~ COMPLETE CUSTOMIZATION AVAILABLE INCLUDING SIZES & FORMATS ~ PLEASE DO NOT COPY ~

(IF UNABLE TO ABORT TAKEOFF)

POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL

BEST GLIDE – **74 KIAS** (85 MPH) *Full Gross Weight*
FUEL SHUTOFF VALVE – OFF
MIXTURE – FULL LEAN / IDLE CUTOFF
FLAPS – DOWN
MASTER & MAGS – OFF *UNLATCH DOORS
PROTECT BODY*

POWER LOSS IN FLIGHT

BEST GLIDE – **74 KIAS** (85 MPH) *Full Gross Weight*
CARB HEAT – ON
NOTE WIND DIRECTION & VELOCITY
PICK LANDING SITE
MIXTURE – FULL RICH
FUEL SHUTOFF VALVE – CHECK ON
FUEL SELECTOR – CHECK / SWITCH / BOTH *Note Gauges*
AUX FUEL PUMP – ON
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*
MIXTURE – FULL LEAN / IDLE CUTOFF
FUEL SHUTOFF VALVE – OFF
SEATBELTS / HARNESS
FLAPS – AS NEEDED *Full Flaps When Field Assured*
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 BREAKERS ONLY IF CRITICAL

ENGINE FIRE IN FLIGHT

MIXTURE – FULL LEAN / IDLE CUTOFF
FUEL SHUTOFF VALVE – CLOSED
MASTER SWITCH – 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 – MIXTURE - IDLE CUTOFF & FUEL SELECTOR - OFF
THROTTLE – FULL OPEN
CONTINUE CRANKING ENGINE A 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

OTHER

EXCESSIVE RATE OF CHARGE: Over Voltage Warning Light Will Illuminate If Reaches Approx. 16 Volts. To Reactivate, Turn Both Sides Of The Master Switch Off / Then On Again. If Light Comes On Again, Terminate Flight ASAP.

INSUFFICIENT RATE OF CHARGE: Nonessential Electric – Off / Terminate Flight ASAP.

Local Frequencies:

UNICOM: 122.7 122.725 122.8 122.975 123.0 123.05
MULTICOM: 122.9 (CTAF) 122.75 (Air To Air)
FSS: 122.2
GROUND: 121.3 121.7 121.9 123.5 123.9
EMERGENCY: 121.5

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.)

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 177B LYCOMING O-360-A1F6, 180 HP

* Empty Weight: LBS (Specific Plane Weight)
* Max. Useful Load: LBS (Including Fuel @ 6 lbs/gal)
Max. Baggage Area: 120 LBS (Included In Useful Load)
Max. T.O. Weight: 2500 LBS

Fuel Type: 100LL (Blue) / 100 (Green)
Usable Fuel: 49 Gallons
Oil Capacity: 8 Quarts (Minimum 6)
Electrical: 12-14 VOLT / 60 AMP
Tire Pressure: Nose-35 PSI / Main-30 PSI (#855 & Up)
Nose-30 PSI / Main-30 PSI (#Up To 854)

CHECKLIST PROCEDURES**Cessna 177****Cardinal N11937****Preflight cabin**

remove control wheel lock
 ignition switch: .. OFF
 master switch: .. ON
 check fuel gauges
 check gyros
 open cowl flaps
 extend flaps
 check nav. lights
 check land. & taxi lights
 master switch: .. OFF
 fuel selector: .. on both

Visual check of airplane**Before starting engine**

seatbelt/shoulder harness: .. SECURE
 passenger briefing, doors locked & closed
 fuel selector valve: BOTH
 avionics power switch: .. OFF
 electrical equipment: ... OFF
 brakes: TEST AND SET
 cowl flaps: .. OPEN
 circuit breakers: .. CHECK
 charts on board

Starting engine

mixture: rich (IN)
 carb heat: cold (IN)
 propeller: high RPM
 prime: (2 - 6 times)
 open throttle: .. 1/4"
 master switch: .. ON

CLEAR AREA

start engine
 set throttle @ 1200 rpm
 oil pressure: CHECK
 lights: AS REQUIRED
 taxi lights: AS REQUIRED
 transponder: STANDBY
 avionics master ON
 flaps: UP
 check brakes before taxi
 lean mixture for taxi

up

set brakes
fasten seat belts, shoulder harness
secure windows and cabin door
check flight controls
set rudder & elevator trim
check flight instruments
check fuel gauges
check fuel valve
set mixture at rich (IN)
set prop at high RPM level
set throttle @ 1800 RPM
check mags 150 rpm max. drop (50rpm diff.)
check carb heat, (rpm drop)
propeller: 3 cycles high to low RPM
check for RPM drop
check for man. pres increase
check for oil pressure
check engine instruments
check ammeter
check suction gauge
reset throttle to 1200 RPM
check cowl flaps: .. OPEN
check mixture: .. RICH
set radios & all avionics
turn transponder: ON ALT.
turn on lights, as required
adjust throttle friction lock
check aux. fuel pump
set wing flaps
release parking brake

Take-off

flaps set
carb heat @ cold
mixture @ rich
throttle @ full open
lift off @ 55kts.
climb out at Vy...80kts.

enroute climb

24" man. pressure
2500 rpm

cruise 21-25" Hg

2100-2500 rpm
close cowl flaps

Vy best rate of climb...80kts
Vx best angle of climb...65kts
Va maneuvering speed...83-93kts
power off glide.....65kts

Before landing

G gas selector: .. BOTH
U undercarriage:
M mixture: RICH
P prop: HIGH RPM
S seat belts: .. ADJUST
trim: ADJUST
landing lights .. ON
carb heat: ON

During landing

final speed ... 65kts
15 - 17" Hg. pressure

After landing

unnecessary lights: .. OFF
carb heat: ... COLD
transponder .. OFF
cowl flaps ... OPEN
wing flaps: .. RETRACT
throttle: set @ 1200

Rejected landing

power: maximum
wing flaps: retract to 20°
airspeed: .. 75 MPH
Cowl flaps: open

stall speed flaps @ 30 . 35kts
stall speed flaps up ... 40kts
minimum cruise airspeed . 45kts

AVOID CONTINUOUS USE BETWEEN 1700-1900 rpm @ <10" Hg. PRESSURE