Cessna Air Plains 180HP Conversion — CheckMate® — Fixed Pitch Prop — 172N-180 HP

INITIAL

Weather & Den.Alt.
Weight & Balance
Performance Req.
Flight Plan – File
Papers – A.R.O.W.
Fuel – Both
Control Lock
Master – On
Flaps – Extend
Pitot Heat – 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
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
Brakes – Pedal Test

START

Seat Track/Back–Lock
Avionics – Off
Autopilot – Off
Carb Heat – Off
Mixture – Full Rich
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 – 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
H.I./Compass–Test

RUN-UP

Brakes – Set
Fuel – Both
Trim – Takeoff
Flight Controls
Instruments
Mixture – Best Power
Primer – In & Lock

1700 RPM
Mags (R&L) – Test
Carb Heat – Test
Vacuum
Amps / Volts
Oil Pressure
Oil Temperature
Idle – (575-625 RPM)
CkThrottle Friction

PRE-TAKEOFF

Flaps – 0°-10°
Mixture – Best Power
Carb Heat-Off *Or As Req.*
Pitot Heat - As Req.
H.I. To Compass
XPDR – Alt + Sqwk
Doors / Windows
Landing Light – On
Strobes – As Req.
Time – Note
Brakes – Release

Abort Plan - Ready!

TAKEOFF

Full Throttle
2300 RPM
Oil Pressure
Rotate * **55** *(63)*
Vy – **73** *(84)*
Flaps – Up

CLIMB

75-85 *(86-97)*
Power
Mixture
Instruments
Taxi / Land Light – Off
Flight Plan – Open

CRUISE

Power
Mixture
Instruments
H.I. To Compass

DESCENT

Mixture – Richen
Fuel – Both
Carb Heat–As Req.
ATIS / AWOS
Altimeter – Set
Instruments
H.I. To Compass

PRE-LANDING

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.*
Speed * **65** *(75)*

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

GO AROUND
Power – Full
Carb Heat – Off
Positive Rate Climb
Flaps – Retract Slowly

AFTER LANDING

Flaps – Up
Carb Heat – Off
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
Hobbs / Tach Time
Control Lock
Chocks
Tie Downs
Pitot Cover
Baggage Door
Cabin Doors

Close Flight Plan

* *Adjust Speed As Needed For Conditions*

X Wind • Max Demo'd –	**15** *(17)*	**Vs_0** • Stall w/flaps –	**40** *(46)*	**Best Glide** *(Full Gross)* –	**68** *(78)*	**Vno** • Max Structural Cruise –	**127** *(146)*
Vr • Rotation Speed –	**55** *(63)*	**Vs** • Stall w/o flaps –	**50** *(58)*	**Va** • Max Abrupt Ctrl *(1750 lbs)* –	**85** *(98)*	**Vne** • Never Exceed –	**158** *(182)*
Vx • Best Angle Climb –	**62** *(71)*	**Best Glide** *(1750 lbs)* –	**56** *(64)*	**Va** • Max Abrupt Ctrl *(2150 lbs)* –	**95** *(109)*	**Vfe** • 10° Flaps –	**110** *(127)*
Vy • Best Rate Climb –	**73** *(84)*	**Best Glide** *(2150 lbs)* –	**62** *(71)*	**Va** • Max Abrupt *(Full Gross)* –	**105** *(121)*	**Vfe** • Full Flaps –	**85** *(98)*

	KNOTS *(MPH)*	FLAPS °	– NOTES –
DEPARTURE			
Rotation *	**55** *(63)*	0	Short Field w/ Obstacle: 10° Flaps – **57** *(66)* Until Clear
Best Angle Climb	**62** *(71)*	0	Soft Field w/o Obstacle: 10° Flaps
Best Rate Climb	**73** *(84)*	0	
CRUISE *(TAS -8,000')*			
Economy	**100** *(115)*	0	2300 RPM – 7.0 GPH – 50%
Normal	**111** *(128)*	0	2500 RPM – 8.4 GPH – 62%
Maximum	**122** *(140)*	0	2700 RPM – 10.1 GPH – 76%
ARRIVAL			
Approach	**75** *(86)*	10-20	1700 RPM *(Initially)*
Short Final *	**65** *(75)*	30	Idle-1200 RPM

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

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

(IF UNABLE TO ABORT TAKEOFF)

POWER LOSS IMMEDIATELY AFTER TAKEOFF / NO RESTART

MAINTAIN AIRCRAFT CONTROL
FLAPS UP – 68 KIAS *(78 MPH)*
FUEL SELECTOR – OFF
MIXTURE – FULL LEAN / IDLE CUTOFF
FLAPS – DOWN
MASTER & MAGS – OFF *(Unlatch Doors)*

POWER LOSS IN FLIGHT

BEST GLIDE – 68 KIAS *(78 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
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)*
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
THEN ONE ESSENTIAL ELECTRICAL DEVICE AT A TIME
RESET CIRCUIT BREAKERS ONLY IF CRITICAL

ENGINE FIRE IN FLIGHT

MIXTURE – FULL LEAN / IDLE CUTOFF
FUEL SELECTOR – OFF
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 – IDLE MIXTURE 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 SPEED
FLAPS – NOT RECOMMENDED FOR LANDING
LAND FASTER AS NEEDED

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 172N "Air Plains" 180 hp Conversion. O-360, Fixed Pitch

* **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: 2550 LBS

Fuel Type: 100 LL *(Blue)* / 100 *(Green)*
Usable Fuel: 40 Gallons (50 LR Tanks) + *(23 w/Flint Tanks)*
Oil Capacity: 8 Quarts *(Minimum 6)*
Electrical: 24-28 VOLT / 60 AMP
Tire Pressure: Nose - 45 PSI / Main - 38 PSI