

Preflight

Weather **BRIEF**
 Flight Plan **FILE as reqd.**
 Weight & Balance **VERIFY OK**
INTERIOR
 Documents **ON BOARD**
 Airworthiness, Registration, POH, W&B
 Battery Master 2 **ON**
 Avionics Cooling Fan **AUDIBLE**
 PFD Voltmeter **23–25 V**
 Flap Position Light **OUT**
 Battery Master 1 **ON**
 Exterior Lights **CHECK**
 Fuel Quantity **CHECK**
 Flaps **100%, CHECK LIGHT ON**
 Oil Annunciator **ON**
 Battery Masters 1 & 2 **OFF**
 Alternate Static Source **NORMAL**
 Circuit Breakers **IN**
 Fire Extinguisher & Hammer .. **ON BOARD**

Before Starting Engine

Preflight Inspection **COMPLETED**
 Tiedowns & Wheel Chocks **REMOVED**
 Passengers **BRIEF**
 Seat Belts, A/C, Fire, Exit, Traffic/Talking, CAPS
 Seat Belts **ADJUST & SECURE**
 CAPS Pin **REMOVE**

Starting Engine

Brakes **HOLD**
 Ignition Key **INSERTED**
 Battery Masters 2 & 1 ... **ON, CHECK 24 V**
 Strobe Lights **ON**
 Propeller Area **CLEAR**
PRIMING (COLD START)
 Mixture **FULL RICH**
 Power Lever **FULL FORWARD**
 Fuel Pump **PRIME**
 Prime for 5 secs until fuel flow reaches 15 gph

NORMAL START

Mixture **LEAN**
 Power Lever **OPEN ¼ INCH**
 Fuel Pump **BOOST**
 Ignition Switch **START**
 Mixture **ADVANCE TO RICH**

FLOODED START

Fuel Pump **OFF**
 Mixture **LEAN**
 Power Lever **FULL FORWARD**
 Ignition Switch **START**
 Power Lever **RETARD**
 Mixture **ADVANCE TO RICH**

AFTER ENGINE START

Power Lever **1000 RPM**
 Mixture **GROUND LEAN**
 Alternator Masters 1 & 2 **ON**
 Avionics Master **ON**
 Engine Parameters **CHECK GREEN**

Before Taxiing

Weather Information **OBTAIN**
 Altimeter **SET**
 Flaps **UP**
DURING TAXIING
 Brakes **CHECK**
 HSI Orientation **CHECK**
 Attitude Indicator **CHECK**
 Turn Coordinator **CHECK**

Before Takeoff

CAPS Pin **REMOVED**
 Flight Instruments **CHECK**
 Flight Controls **FREE & CORRECT**
 Autopilot **TEST**
 Trim **SET TAKEOFF**
 Fuel Quantity **CONFIRM**
 Fuel Selector **SWITCH TANK**
 Fuel Pump **BOOST**
 Doors **CLOSE & LATCH**

ENGINE RUN-UP

Mixture **FULL RICH or as reqd.**
 Brakes **HOLD**
 Power Lever **1700 RPM**
 Annunciators **CHECK CLEAR**
 Pitot Heat & Lights **ON**
 Alternator Load **CHECK**
 Alternator Voltage **CHECK 28 V**
 Pitot Heat & Lights **As reqd.**
 Magnetos **CHECK L & R**
 Check RPM drop < 150, RPM differential < 75
 Engine Parameters **CHECK GREEN**

AFTER ENGINE RUN-UP

Power Lever **1000 RPM**
 Mixture **GROUND LEAN**
 Flaps **50%**
 Altimeter **SET**
 Navigation & GPS **SET**
 COM Radios **SET**
 Transponder **SET**
 Flight Plan **OPEN**
 Takeoff & Abort Plan **BRIEF**

Takeoff

Lights **ON**
 Transponder **SET**
 Flaps **VERIFY 50%**
 Mixture **FULL RICH or as reqd.**
 Fuel Pump **BOOST**

STARTING TAKEOFF

Power Lever **FULL FORWARD**
 Propeller **CHECK 2600 RPM**
 Engine Parameters **CHECK GREEN**
 At 70 kts, Elevator **ROTATE**
 At 90 kts, Flaps **UP**
 At 500' AGL, CAPS **CALLOUT**
 Best Angle V_X 78 (SL) 82 (10,000')
 Best Rate V_Y 101 (SL) 95 (10,000')

Climb

Power **FULL**
 Mixture **As reqd.**
 Lean to maximum power flow when above 4000'
 Engine Parameters **CHECK GREEN**
 Fuel Pump **BOOST**
 Flaps **VERIFY UP**
 Enroute Climb **110–120 KIAS**

Cruise

Lights **As reqd.**
 Fuel Pump **OFF**
 Power **SET**
 Mixture **LEAN as reqd.**
 Engine Parameters **CHECK GREEN**
 Fuel Selector **SWITCH as reqd.**

Approach & Descent

Weather Information **OBTAIN**
 Altimeter **SET**
 Approach Procedure **BRIEF**
 Lights **ON**
 Fuel Pump **BOOST**
 Fuel Selector **FULLEST TANK**
 Mixture **As reqd.**

Before Landing

Fuel Pump **BOOST**
 Mixture **FULL RICH or as reqd.**
 Seat Belts **SECURE**
 Flaps **DEPLOY**
 Approach (Flaps UP) **100–110 KIAS**
 Approach (Flaps 50%) **90–100 KIAS**
 Approach (Flaps 100%) **80–85 KIAS**
 Short Field (Flaps 100%) **77 KIAS**

Go-Around

Autopilot **DISENGAGE**
 Power Lever **FULL FORWARD**
 Mixture **FULL RICH or as reqd.**
 Flaps **50%, UP**
 Retract all flaps when airspeed is above 80 KIAS

After Landing

Power Lever **1000 RPM**
 Mixture **GROUND LEAN**
 Flaps **UP**
 Transponder **VFR**

Shutdown

Fuel Quantity **RECORD**
 Avionics Master **OFF**
 Power Lever **IDLE**
 Fuel Pump **OFF**
 Mixture **CUTOFF**
 All Switches **OFF**
 Ignition Switch **OFF**

Airspeeds & Limits (All Speeds in KIAS)Never Exceed V_{NE} 201Max Cruise V_{NO} 178Maneuvering V_O 133 (3400 lb) 123 (2900 lb)CAPS Deployment V_{PD} 133Flap Extension V_{FE} 119 (50%) 104 (100%)Best Glide V_G 88Stall V_S 70 (clean) 59 (flaps)

Oil 15W-50/20W-50/20W-60, 6–8 qt

Fuel Capacity 47 gal (taps) 81 gal (total)

MTOW 3400 lb BEW 2340 lb