

Exterior Inspection

Check Fuel for water

Charts out

Doors latched

Seat and Shoulder Belts

Fuses

Avionics Master—OFF

Trim for takeoff

Fuel Selector—SET

Cowl Flaps—OPEN

Rotating Beacon—ON

Pre-Start

Battery side of Master—ON

Check fuel Levels.

Mixture—RICH

Prop—IN

Throttle— $\frac{1}{3}$ to $\frac{1}{2}$ "

Push and hold fuel boost RHS

Fuel flow 25-30 lbs/hr

Fuel Switch

Left—OFF

Right—MIDDLE (Low)

Throttle $\frac{1}{4}$ "

Start

Note Time

Clear

Turn Key

10 sec max

20 sec cool down

1000 RPM

Oil Pressure—30 sec max

Fuel Boost—OFF

Alternator—ON (Ammeter +)

Radio Master

Lean Aggressively

Pre-Taxi

Set GPSS or VOR for 430

Transponder—GND & 1200

Get ATIS

Set Altimeter and verify with
field elevation

Check oil and engine temps

Check Marker Beacon

Ground & Tower in Comm

Check Static Port

Gear Green and Horn works

Call w/ location & ATIS for taxi

Taxi

Test brakes - 3' and stop

Controls free & correct

Position controls for wind

Set DG

In Turns

 Check ball and TC

 Check HI

Set Transponder if required

Vacuum Gauge in Green

Cycle Autopilot

Runup

Feet on brakes

Throttle 1700 RPM

Suction in green 5"

Magnetos

 150 RPM Max drop

 50 RPM Max difference

Cycle Prop

Check oil temp and pressure

Check engine temp

GPS/VORs set if required

Radios—Tower and Approach

Pre-Takeoff

Set Bug on HI to Rwy

Set Flaps

Mixture—RICH

Lights, Camera, Action

 Landing Light & Strobe

 Transponder—Alt

Check for traffic

Flaps

Normal 10°

Soft Field 10°

Takeoff

Verify Heading matches runway

Slight Back Pressure

Ailerons for wind, Right Rudder

Airspeed alive, RPM max

Lift nose 70-80 MPH

Tap brakes then Gear Up

Flaps up—Rate-of-Climb pos

Climb Vy-110 MPH to Pattern

Pattern Alt

 Reduce Throttle & Prop

 Cruise Climb—120-130 MPH

Climb

Airspeed 120-130 MPH

Check CHT's and TIT

Scan aggressively

TIT 1380 Max

CHT 350 Max

Cruise

Lean to 20 gph at top of Green

Landing Light—OFF

Check Heading Indicator

Check Temps

Cowl Flaps Slightly Open

Change Tanks every ½ Hour

22/24 lean to 18.5 gph

Pre-Landing

C-FARTS

- Compass and HI
- Fuel Selector—Most
- ATIS
- Runway in use
- Traffic Pattern Alt
- Safety
 - Lights
 - Seat Belts
 - Loose Items

Landing

RAAGS at all pattern positions

- Report—when req'd
- Airspeed
- Altitude
- Gear
- Scan Aggressively

Gear 160 MPH MAX

1st Notch 160 MPH MAX

2nd Notch 120 MPH MAX

3rd Notch 120 MPH MAX

Pattern Airspeeds and Power Settings

- Level Flight - 17" MP (21" MP gear down) ~100 MPH
- ILS - 16" drop gear when needle is at top of circle
- Non-Precision - 15" -5° pitch. Drop gear at FAF

- Downwind - 17" MP and 100 MPH
- Numbers - 15" MP and 90 MPH 1 Notch of Flaps
- Base - 15" MP and 85 MPH 2 Notches
- Final - 15" MP and 80 MPH 3 Notches
- Threshold - Touch over Idle and 70 → 62 MPH

Landing—On Runway

Flaps—UP

Ailerons into wind

Landing—Off Runway

Cowl Flaps Open

Lean

Landing Light—OFF

Transponder—OFF

Contact Ground with Position

Shutdown

TIT 70's

Avionics—OFF

Mixture, Master, Mags

Keys on Dash

Hot Start—More than 5 minutes and less than 1 hour

Throttle all the way IN

Mixture all the way OUT

Aux Pump—HIGH 2 minutes

Switch Tanks

Prime

Mixture in with pump running until Fuel Flow Peaks

Throttle— $\frac{1}{4}$ "

Boost pump low

Crank engine—momentary boost pump may be required

Retard throttle to 1000 RPM

(Based on CPA tech note 010)

Speeds—MPH

V_X 90

V_Y 110

V_A 135 Heavy

V_A 110 Very Light

V_{NE} 1225

Normal 79-190

V_{SO} 65

V_{S1} 75 Category A

V_{FE} 160 20°-30° 120

V_{GE} 160