

DA40-G1000 (Ted Vin v0.7)

Ground Operations

Initial

- ▶ Papers - A-R-0-W.
- ▶ Controls - free & correct
- Mags. - key out
- ▶ Mixture - idle cutoff
- ▶ Throttle - idle
- ▶ Electrical - off
- ▶ Essential Bus - off
- ▶ Avionics - off
- ▶ Master - on
- ▶ Fuel Pump - check
- ▶ Fuel - note
- ▶ Flaps - check & set T/O
- ▶ Lights/Pitot - test
- ▶ Master - off
- ▶ Hobbs Time - note

Walkaround

- ▶ Canopy/Door - check
- ▶ Fuel/Oil - test/sample
- ▶ Caps/Drains/Vents
- ▶ Surfaces/Controls
- ▶ Stall Strips/Fairings
- ▶ Exhaust/Antennas
- ▶ Prop/Air Intakes x3
- ▶ Pitot/Static/Stall
- ▶ Gear/Tires/Brakes
- ▶ Ties/Chocks
- ▶ Final Walkaround

Pre-Start

- ▶ Rear Door - secure
- ▶ Rudder Pedals - adjust
- ▶ Seat Belts
- ▶ Parking/Brakes - test/set
- ▶ Circuit Brkrs. - check
- ▶ Strobe (ACL) - on
- ▶ Avionics - off
- ▶ Fuel Selector - least
- ▶ Canopy - pos. 1/2
- ▶ Passenger - brief

Start

- Prime
 - Mixture - idle cutoff
 - Prop - high RPM
 - Friction - adjust
 - Master Bat. - on
 - Throttle - 1.2"
 - Electric Pump - on
 - Warm
- Mixture - 1-3 sec

■ Cold

- Mixture - 3-5 sec
- Throttle - 0.4"
- "Prop Clear!"
- ▶ Mags. - start
- ▶ Throttle - 1000 RPM
- ▶ Oil Pressure - 15 secs.
- ▶ Electric Pump - off
- ▶ Master Alt. - on
- ▶ Engine Inst. - no Xs
- ▶ Volts/Amps - [25-30] [>0]
- ▶ Fuel Pressure - 14-35 psi
- ▶ Mixture - lean (peak)

Pre-Taxi

- ▶ Flaps - up, then T/O
- ▶ Lights - as required
- ▶ Avionics - on/set
- ▶ GPS - DB date
- ▶ Fuel Totalizer - enter
- ▶ ATIS - PFD/backup/AP(?)
- ▶ Radio - test
- ▶ Transponder - squawk
- ▶ Check - TC/Alt/HSI->MC
- ▶ Clearance - obtain
- ▶ Brakes - release/test

Run-Up

- ▶ Parking Brake - set
- ▶ Seat Belts - check
- ▶ Canopy/Door - lock
- ▶ Door Warning - off
- ▶ Flight Controls - correct
- ▶ Instruments - scan
- ▶ Alternate Static - check
- ▶ AP - MET/HDG
- ▶ Trim - T/O
- ▶ Fuel Selector - fullest
- ▶ Hdg./Alt. Bugs
- ▶ GPS/Status Bar/Ann. Test
- ▶ MFD Range/Track Up
- ▶ Comm/Nav/VOR/FP
- ▶ Mixture - rich
- ▶ Throttle - 2000 RPM
- ▶ Cycle Prop x3 - 250-500
- ▶ Mags. L/R - 175, 50.
- ▶ Alternate Air - check
- ▶ Engine Inst. - check
- ▶ Idle Check
- ▶ Throttle - 1000 RPM
- ▶ Mixture - lean
- ▶ Lights - as required
- ▶ ADSB Handheld - on

Shutdown

- ▶ ELT - check (121.5)
- ▶ Avionics - off
- ▶ Electrical - off
 - ACL Strobes - on
- ▶ Throttle - 1000 RPM
- ▶ Mags. - off then both
- ▶ Mixture - idle cutoff
- ▶ Mags. - key out
- ▶ Tach Time - note
- ▶ Master - off

Post-Flight

- ▶ ADSB Handheld - off
- ▶ Tie-downs/Chocks
- ▶ Pitot Cover
- ▶ Gust Lock
- ▶ Close Flight Plan
- ▶ Hobbs Time - note
- ▶ Check Under Seats
- ▶ Canopy/Door - lock
- ▶ Post-Flight Walkaround

Airspeeds (KIAS)

- ▶ Vr = 59
- ▶ Weights
 - 2546/2535/2205/1874 lbs
- ▶ Vg = 76/73/68/60
- ▶ Vy(Up) = 76/73/68/60
- ▶ Vy(T/O) = 67/66/60/54
- ▶ Approach Speeds
 - Up - 76/73/68/60
 - T/O - 74/72/66/59
 - LDG - 73/71/63/58
- ▶ Va
 - MAM 40-227
 - yes - 111 @ 2284-2546
 - no - 108 @ 2161-2535
 - below 2161/2284 - 94

In-Flight Operations

Pre-Takeoff

- ▶ Abort Plan/Lost Comm.
 - ▶ Canopy/Door - lock
 - ▶ Fuel Selector - fullest
 - ▶ Flaps - T/0
 - ▶ Mixture - rich
 - ▶ Prop - high RPM
 - ▶ Electric Pump - on
 - ▶ Pitot Heat - as required
 - ▶ Review Airspeeds
 - ▶ Time - note/start
- ### Takeoff
- ▶ "Lights, Camera, Action"
 - ▶ Mixture/Prop/Throttle
 - ▶ Engine Inst. - green
 - ▶ Vr - 59; then b7-bD KIAS
 - ▶ Safe Altitude
 - ▶ Prop - 2400 RPM
 - ▶ Elect. Pump - off
 - ▶ Lights - as required
- ### Climb
- ▶ T/0
 - ▶ Vy = b7-54 KIAS
 - ▶ bD minus 1.8 per 100 lbs under 264lb
 - ▶ Cruise
 - ▶ Flaps - up
 - ▶ Vy = 7b-bD KIAS
 - ▶ Mixture - rich
 - ▶ >5000 hold const. EGT
 - ▶ Prop - 2400 RPM
 - ▶ Throttle - full
 - ▶ Engine Inst. - green
 - ▶ Trim - as required
 - ▶ High Altitude - pump on
- ### Cruise
- ▶ Flaps - up
 - ▶ Throttle - 21-24"
 - ▶ Prop - 1a00-2400 RPM
 - ▶ Mixture
 - ▶ Higher Power - richen
 - ▶ Economy: max EGT & <=75%
 - Power: 100°F/55°C lower
 - ▶ High Altitude - pump on
 - ▶ Flow Check (~15 min)
 - ▶ Trim, Fuel
 - ▶ Mixture, Prop, Throttle
 - ▶ Flaps, Engine Inst.
 - ▶ Pump, Mag., Master
 - ▶ CHT: 150-400°F

011: 1b5-220°F

Descent

- ▶ Mixture - richen slowly
- ▶ Prop - 1a00-2400 RPM
- ▶ Throttle - as required
- ▶ High Altitude - pump on
- ▶ Flow Check
- ▶ CHT Cool Down
- ▶ <= 50°F (22.8°C) per min.

Pre-Landing

- ▶ ATIS/Rvys & Patterns
- ▶ "CGLWPSFM"
- ▶ **G**: Fuel Selector
- downwind/fullest
- ▶ **M**: Mixture - rich
- ▶ **P**: Elect. Pump - on
- ▶ **P**: Prop - high RPM
- ▶ **S**: Seat Belts - secure
- ▶ **F**: Flaps - as required
- T/0 <10b KIAS
- LDG <91 KIAS

Climb

- ▶ Trim - as required
- ▶ Lights - as required
- ▶ Approach - 73-5b KIAS

Go Around

- ▶ Throttle - full
- ▶ Vy - b7-54 KIAS
- ▶ Flaps - T/0
- ▶ Safe Altitude
- ▶ Prop - 2400 RPM
- ▶ Elect. Pump - off
- ▶ Cruise Climb

Post-Landing

- ▶ Throttle - 1000 RPM
- ▶ Mixture - lean
- ▶ Flaps - up
- ▶ Elect. Pump - off
- ▶ Pitot Heat - off
- ▶ Trim - T/0
- ▶ Lights - as required
- ▶ Clearance - obtain

C0 Contamination

- ▶ Cabin Heat - off
- ▶ Ventilation - open
- ▶ Emergency Windows - open
- ▶ Forward Canopy
- ▶ partially open
- ▶ **D0 NOT lock/unlock rear door during flight**

Engine Failure

Short Flow

- ▶ Fuel Selector - fullest
- ▶ Mixture - full/check
- ▶ Elect. Pump - on
- ▶ Alternate Air - on
- ▶ Mags. - check all

Glide and Trim

- ▶ **Speed: 7b-bD KIAS**
- ▶ Windmill: 1:8.8,
- 1:45m/1kft

- ▶ Stationary: 1:10.3,
- 1:7m/1kft

Wind and Landing Site

- ▶ Longer Flow
- ▶ Engine Inst.

Short Flow Again

Windmill Restart

- ▶ Airspeed >= 70 KIAS
- ▶ Mags. - **both**
- ▶ Mixture - lean then slowly richen

Stationary Restart

- ▶ Airspeed >= 80 KIAS
- ▶ Electrical - off
- ▶ Avionics - off
- ▶ Master - on
- ▶ Mags. - **start**

No Restart

- ▶ Fuel Selector - off
- ▶ Mixture - idle cutoff
- ▶ Mags. - off
- ▶ Master - off
- ▶ Belt and Seat - check
- ▶ Unlatch Door
- ▶ Brace