

DA40-G1000 (Ted Yin 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 @ 2284-2646
 - 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 67-60 KIAS
 - ▶ Safe Altitude
 - Prop – 2400 RPM
 - Elect. Pump – off
 - Ldg. light – off
 - ▶ Vy (T/0)
 - 67-54 KIAS
 - 68 minus 1.8 for each 100 lbs under 2646
 - ▶ Cruise
 - Flaps – up
 - Vy: 76-60 KIAS
 - Prop – 2400 RPM
 - Mixture – rich
 - >5000 hold const. EGT
 - ▶ Throttle – full
 - ▶ Engine Inst. – green
 - ▶ Trim – as required
 - ▶ High Altitude – pump on

Cruise

- ▶ Flaps – up
- ▶ Throttle – 21-24"
- ▶ Prop – 1600-2400 RPM
- ▶ Mixture
 - Higher Power – richen
 - Economy: max EGT & <=75% . Power: 100°F/55°C lower
- ▶ Flow Check (~15 min)
 - Trim, Fuel
 - Mixture, Prop, Throttle
 - Flaps, Engine Inst.
 - Pump, Mag., Master
- ▶ CHT: 150-400°F
- ▶ Oil: 165-220°F

Descent

- ▶ Mixture – richen slowly
- ▶ Prop – 1600-2400 RPM
- ▶ Throttle – as required
- ▶ High Altitude – pump on
- ▶ Flow Check
- ▶ CHT Cool Down
 - <= 50°F/22.8°C pm

Pre-Landing

- ▶ ATIS/Rvys & Patterns
- ▶ "CGUMPSF"
- 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 <108 KIAS
- LDG <91 KIAS
- ▶ Trim – as required
- ▶ Ldg. light – on
- ▶ Approach – 73-58 KIAS

Go Around

- ▶ Throttle – full
- ▶ Vy – 67-54 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: 76-60 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
 - Short Flow
 - Mags. – **both**
 - Mixture – lean and 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