

DA40-G1000 (Ted Yin v0.6)

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
- ▶ Passenger - brief
- ▶ Strobe (ACL) - on
- ▶ Avionics - off
- ▶ Fuel Selector - least
- ▶ Canopy - pos. 1/2

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

Pre-Takeoff

- ▶ Abort Plan/Lost Comm.
- ▶ Canopy/Door - lock

- ▶ Fuel Selector - fullest
- ▶ Flaps - T/O
- ▶ 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

Climb

- ▶ Vy (T/O)
- 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 - 1800-2400 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 - 1800-2400 RPM
- ▶ Throttle - as required

- ▶ High Altitude – pump on
- ▶ Flow Check
- ▶ CHT Cool Down
 - <= 50°F/22.8°C pm

Pre-Landing

- ▶ ATIS/Ruys & Patterns
- ▶ "CGUMPSF"

- G: Fuel Selector
 - downwind/fulltest
- M: Mixture – rich
- P: Elect. Pump – on
- P: Prop – high RPM
- S: Seat Belts – secure
- F: Flaps – as required
- T/O <100 KIAS
- LDG <91 KIAS
- Trim – as required
- ▶ Ldg. Light – on
- ▶ Approach – 73-50 KIAS

Go Around

- ▶ Throttle – full
- ▶ Vy – 67-54 KIAS
- ▶ Flaps – T/O
- ▶ 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/O
- ▶ Lights – as required
- ▶ Clearance – obtain

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
- ▶ Tiedowns/Clocks
- ▶ Pitot Cover

Engine Failure

- ▶ Gust Lock
- ▶ Close Flight Plan
- ▶ Hobbs Time – note
- ▶ Check Under Seats
- ▶ Canopy/Door – lock
- ▶ Post-Flight Walkaround
- ▶ Short Flow
 - Fuel Selector – fullest
 - Mixture – full/check
 - Elect. Pump – on
 - Alternate Air – on
 - Mags. – check all
- ▶ **Glide and Trim**
 - **Speed: 70-60 KIAS**
 - **Ratio: 8.0:1 1.45m/1kft**
- ▶ Wind and Landing Site
- ▶ Longer Flow
- ▶ Engine Inst.
 - Short Flow Again
- ▶ Wind 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

C0 Contamination

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

Airspeeds (KIAS)

- ▶ Weights
 - 254lb/2535/2205/1674 lbs

- ▶ Vr – 59
- ▶ Vy
 - Up – 76/73/60/60
 - T/O – 67/60/60/54
- ▶ Best Glide
 - 76/73/60/60
 - 70 @ 2300 lbs
- ▶ Va
 - M41 40-227
 - no – 100 @ 2161-2535
 - yes – 111 @ 2204-2646
 - below 2161/2204 – 94
 - 101 @ 2300 lbs
- ▶ Approach Speeds
 - Engine Out
 - Up – 76/73/60/60
 - T/O – 74/72/60/59
 - LDG – 73/71/63/50
 - Normal – 73/71/63/50