DA40-G1000 (Ted Yin v0.7)

Ground Operations

Initial
- ▲ Papers – A.R.O.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/AI/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
- ▲ Tiedowns/Chocks
- ▲ Pitot Cover
- ▲ Gust Lock
- ▲ Close Flight Plan
- ▲ Hobbs Time – note
- ▲ Check Under Seats
- ▲ Canopy/Door – lock
- ▲ Post-Flight Walkaround

Airspeeds (KIAS)
- ▲ V_r = 59
- ▲ Weights
  - ▲ 2646/2535/2205/1874 lbs
- V_g = 76/73/68/60
- $V_y(Up)$ = 76/73/68/60
- $V_y(T/O)$ = 67/66/60/54
- Approach Speeds
  - ▲ Up – 76/73/68/60
  - ▲ T/O – 74/72/66/59
  - ▲ LDG – 73/71/63/58
- V_a
  - • 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
- Fuel Selector – lock
- 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
- Lights – as required

Climb
- Vy (T/O)
- 67-54 KIAS
- 68 minus 1.8 per 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
- Fuel Selector – richen slowly
- Prop – 1800-2400 RPM
- Throttle – as required
- High Altitude – pump on
- Flow Check
- CHT Cool Down
- <= 50°F/22.8°C pm

- 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,
- 1.45nm/1kft
- Stationary: 1:10.3,
- 1.7nm/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

Pre-Landing
- ATIS/Rwys & 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/O <108 KIAS
- LDG <91 KIAS
- Trim – as required
- Approach – 73-58 KIAS
- Lights – as required

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

CO Contamination
- Cabin Heat – off
- Ventilation – open
- Emergency Windows – open
- Forward Canopy
  - partially open
- DO NOT lock/unlock rear door during flight

Engine Failure
- Short Flow