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)
- ▲ Vr = 59
- ▲ Weights
  - 2646/2535/2205/1874 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

Post-Flight
- ▲ ADSB Handheld – off
- ▲ Tiedowns/Chocks
- ▲ Pitot Cover
- ▲ Fuel – switch to L/R
- ▲ Gust Lock
- ▲ Close Flight Plan
- ▲ Hobbs Time – note
- ▲ Check Under Seats
- ▲ Cabin / Baggage – lock
- ▲ Post-Flight Walkaround

Engine Failure
- ▲ Short Flow
  - Fuel – on/both
  - Mixture – full/check
  - Electrical Pump – on
  - Alternate Air – on
  - Mags. – check all
- ▲ Glide and Trim
  - · Speed: 68 kts
  - · Ratio: 9, 1.48nm/1000ft
- ▲ Wind and Landing Site
- ▲ Longer Flow
  - Engine Indicators
  - Short Flow Again
- ▲ No Restart
  - Fuel – off
  - Mixture – idle cut-off
  - Prop/Throttle – off
  - Mags. – off
  - Master – off
  - Belt and Seat – check
  - Unlatch Door
  - Brace
- ▲ Approach – 80/70/65 kts

In-Flight Operations

Pre-Takeoff
- Mixture
- Canopy/Door - lock
- Abort Plan/Lost Comm.
- Prop - 1800-2400 RPM
- Throttle - as required
- High Altitude - pump on
- Flow Check
- Mixture - rich
- Fuel Selector - fullest
- Flaps - T/O
- Electric Pump - on
- Pitot Heat - as required
- Prop - high RPM
- Review Airspeeds
- Time - note/start

Takeoff
- "Lights, Camera, Action"
- Mixture/Prop/Throttle
- Engine Inst. - green
- Vr - 59, then 67-60 KIAS
- Safe Altitude
- CHT Cool Down
- <= 50°F/22.8°C pm

Climb
- Prop - 2400 RPM
- Mixture - rich
- Throttle - full
- Engine Inst. - green
- Trim - as required
- High Altitude - pump on
- Flaps - up
- Vy (T/O)
- Vy: 76-60 KIAS
- 67-54 KIAS
- 68 minus 1.8 for each
- 100 lbs under 2646
- >5000 hold const. EGT
- Safe Altitude
- Elect. Pump - off
- Ldg. Light - off

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
- 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

Pre-Landing
- ATIS/Rwys & Patterns
- "CCGUMPSF"
- G: Fuel Selector - downwind/fullest
- M: Mixture - rich
- P: Elect. Pump - on
- P: Prop - high RPM
- S: Seat Belts - secure
- F: Flaps - as required
- Mags. - both
- Short Flow
- Ldg. Light - on
- Trim - as required
- LDG <91 KIAS
- T/O <108 KIAS
- Approach - 73-58 KIAS
- Safe Altitude
- Flaps - T/O

Go Around
- Throttle - full
- Mixture - rich
- Prop - 2400 RPM
- Flaps - up
- Vy - 67-54 KIAS
- Vy - 76-60 KIAS
- Safe Altitude
- Flaps - T/O
- 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
- Fuel Selector - fullest
- Mixture - full/check
- Elect. Pump - on
- Alternate Air - on
- Mags. - check all
- Glide and Trim
- Speed: 76-60 KIAS
- 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

C172S-G1000 (Ted v1.2)

Initial
- Papers - A.R.O.W.
- Control Lock - off
- Mags. - key out
- Oil Pressure - 30 secs.
- Volts/Amps - [>26] [>0]
- Mixture - lean for taxi
- Fuel - both
- Master - on
- Fuel - note
- Flaps - down
- Lights/Pitot - test
- Avionics on/off - fans
- Master - off
- Hobbs Time - note

Pre-Taxi
- Fuel Shutoff - on
- 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 - test

Walkaround
- Fuel/Oil - dip/sample
- Caps/Drains/Vents
- Surfaces/Controls
- Exhaust/Antennas
- Prop/Belt/Air Intake
- Pitot/Static/Stall
- Gear/Tires/Brakes
- Ties/Baggage Door
- Final Walkaround

Pre-Start
- Doors - secure
- Belts/Seat Track
- Brakes - check, set
- Circuit Brkrs. - check
- Passenger - brief
- Beacon - on
- Avionics - off
- Fuel - both

Start
- Stby. Battery - test/arm
- Engine Ind. - no Xs
- Volts - [[E>24] [[K>1.5]
- Amps - S<0/ann on
- Prime:
- Mixture - idle cutoff
- Brakes - secure
- Master - on
- Throttle - slight
- Aux. Pump - on
- Mixture - prime
  - warm: 0-3 sec
  - cold: 3-5 sec
- Aux. Pump - off

Run-Up
- Brakes - set
- Seat Belts - check
- Doors/Windows - secure
- Flight Controls - correct
- Instruments - scan
- Alternate Static - check
- AP - MET/HDG
- Trim - takeoff
- Fuel - on/both
- Hdg./Alt. Bugs
- Mags. - 150, 50
- Throttle - 1800 RPM
- Mixture - rich
- Comm/Nav/VOR/FP
- MFD Range/Track Up
- GPS/Status Bar/Ann. Test
- Engine Inst. - check
- Idle Check
- Throttle - 1000 RPM

Pre-Takeoff
- Abort Plan/Lost Comm.
- Fuel - on/both
- Flaps - 0-10°
- Mixture - rich
- Aux. Pump - off
- Pitot heat - as required
- Lights - as required
- Review Airspeeds
- Time - note/start
- Beacon - on
- Throttle - 1000 RPM
- Mags. - off then both
- ADSB Handheld - on

Takeoff
- Mixture - 3/4 rich
- "Prop Clear!"
- Mags. - start
- Throttle - 1000 RPM
- Engine Inst. - green
- Mixture/Throttle
- "Lights, Camera, Action"

Climb / Cruise
- Flaps - up
- Mixture - lean >3000'
- Flow Check (~15 min)
- Cruise Climb - 75-85 kts
- Vr - 55 kts
- Vx - 62 kts, Vy - 74 kts
- Fuel, Trim
- Flaps, Engine Inst.
- Mixture, Throttle
- Master, Mag., Pump

Descent
- Mixture - richen slowly
- Throttle - as required
- Mixture - lean

Pre-Landing
- ATIS/Rwys & Patterns
- "CCGUMPSF"
- G: Fuel - on/both
- M: Mixture - rich
- S: Seat Belts - secure
- F: Flaps - as required
- Ldg. Light - on
- Approach - 60-65 kts
- Trim - as required

Post-Landing
- Throttle - 1000 RPM
- Mixture - lean
- Flaps - up
- Pitot Heat - off
- Lights - as required
- Clearance - obtain

Shutdown
- ELT - check (121.5)
- Avionics - off
- Lights - off
- Beacon - off
- Throttle - 1000 RPM
- Mixture - idle cutoff
- Mags. - off
- Master - off
- Tach Time - note
- Stby. Battery - off