

Post-Flight

- ▶ ADBS 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

DA40-G1000 (Ted Vin v0.8)

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
 - ▶ ADBS Handheld - on

▶ 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
- ▶ ADBS Handheld - off
 - ▶ Tiedowns/Chocks
 - ▶ Pitot Cover
 - ▶ Gust Lock
 - ▶ Close Flight Plan
 - ▶ Hobbs Time - note
 - ▶ Check Under Seats
 - ▶ Canopy/Door - lock
 - ▶ Post-Flight Walkaround
- #### Flooded Engine
- ▶ Electric Pump - off
 - ▶ Mixture - lean (full aft)
 - ▶ Throttle - 1/2 position
 - ▶ Mags. - start
 - ▶ When engine fires:
 - Throttle - idle
 - Mixture - rich (rapidly)
 - ▶ Finish up normal start

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

Shutdown

In-Flight Operations

Pre-Takeoff

- ▶ Abort Plan/Lost Comm.
 - ▶ Canopy/Door – lock
 - ▶ Fuel Selector – fullest
 - ▶ Flaps – T/0
 - ▶ **Mixture** – rich
 - ▶ **Prop** – high RPM
 - ▶ Pitot Heat – as required
 - ▶ Review Airspeeds
 - ▶ Time – note/start
- Takeoff
- ▶ "Lights, Camera, Action"
 - ▶ **Electric Pump** – on
 - ▶ Mixture/Prop/Throttle
 - ▶ Engine Inst. – green
 - ▶ Vr – 59, then b7-b0 KIAS
 - ▶ Safe Altitude
 - ▶ **Prop** – 2400 RPM
 - ▶ **Pump** – off
 - ▶ Lights – as required
- Climb
- ▶ T/0: Vy = b7-54 KIAS
 - ▶ b8 minus 1.8 per 100 lbs under 2b4b
 - ▶ Cruise
 - ▶ Flaps – UP
 - ▶ Vy = 7b-b0 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** – 1800-2400 RPM
 - ▶ **Mixture**
 - ▶ Higher Power – richen
 - ▶ Economy: max EGT & <=75%
• Best: 100°F (55°C) lower
 - ▶ High Altitude – **pump** on
 - ▶ Flow Check (≈15 min)
 - ▶ Trim, Fuel (Switch tanks)
 - ▶ Mixture/Prop/Throttle
 - ▶ Flaps, Engine Inst.
 - ▶ Pump, Mag., Master
 - ▶ CHT: 150-400°F
 - ▶ Oil: 1b5-220°F

Descent

- ▶ **Mixture** – richen slowly
 - ▶ **Throttle** – as required
 - ▶ **Prop** – 1800-2400 RPM
 - ▶ High Altitude – **pump** on
 - ▶ CHT Cool Down
 - ▶ <= 50°F (22.8°C) per min.
- Pre-Landing
- ▶ ATIS/Rwys & Patterns
 - ▶ "CGMPSP"
 - ▶ **G**: Fuel Selector
 - downwind/fullest
 - **M**: **Mixture** – rich
 - **P**: **Prop** – high RPM
 - **P**: **Pump** – on
 - **S**: Seat Belts – secure
 - **F**: Flaps – as required
 - T/0 <10b KIAS
 - LDG <91 KIAS
 - ▶ 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
 - ▶ **Pump** – off
 - ▶ Lights – as required
 - ▶ Cruise Climb
- Post-Landing
- ▶ **Throttle** – 1000 RPM
 - ▶ **Mixture** – lean
 - ▶ Flaps – UP
 - ▶ **Electric 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

- **Pump** – on
 - Alternate Air – on
 - Mags. – check all
 - ▶ **Glide and Trim**
 - **Speed**: 7b-b0 KIAS
 - Windmill: 1-b-8b
 - 1-b5m/1kft
 - Stationary: 1:10-3b
 - 1-b7m/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
- Engine Fire
- ▶ Cabin Heat – off
 - ▶ Emergency Descent
 - ▶ Landing is ensured
 - ▶ Fuel Selector – off
 - **Throttle** – full
 - **Pump** – off
 - Master – on
 - Emergency Windows – open
 - ▶ Engine-off Landing
- Electrical Fire
- ▶ Cabin Heat – off
 - ▶ Emergency Switch – on
 - ▶ Master – off
 - ▶ Emergency Windows – open
 - ▶ Forward Canopy – partially
 - ▶ Land ASAP

CL225-61000 (Ted v1.2)

Initial

- ▶ Papers – A.R.0-W.
 - ▶ Control Lock – off
 - ▶ Mags. – key out
 - ▶ Mixture – idle cutoff
 - ▶ Throttle – idle
 - ▶ Avionics – off
 - ▶ Fuel Shutoff – on
 - ▶ Fuel – both
 - ▶ Master – on
 - ▶ Fuel – note
 - ▶ Flaps – down
 - ▶ Lights/Pitot – test
 - ▶ Avionics on/off – fans
 - ▶ Master – off
 - ▶ Hobbs Time – note
- 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 Brks. – check
 - ▶ Passenger – brief
 - ▶ Beacon – on
 - ▶ Avionics – off
 - ▶ Fuel – both
- Start
- ▶ Stby. Battery – test/arm
 - ▶ Engine Ind. – no Xs
 - ▶ Volts – [E>24V] [W<1.5V]
 - ▶ Amps – S<0/arm on
 - ▶ P-time:
 - 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

Mixture – 3/4 rich

- ▶ "Prop Clear!"
 - ▶ Mags. – start
 - ▶ Throttle – 1000 RPM
 - ▶ Oil Pressure – 30 secs.
 - ▶ Volts/Amps – [E2b] [E>0V]
 - ▶ Mixture – lean for taxi
- Pre-Taxi
- ▶ Flaps – up
 - ▶ Lights – as required
 - ▶ Avionics – on/set
 - ▶ GPS – DB date
 - ▶ Fuel Totalizer – enter
 - ▶ ATIS – PFD/backup/AP(?)
 - ▶ Radio – test
 - ▶ Transponder – squawk
 - ▶ Check – TC/Alt/ASI<>MC
 - ▶ Clearance – obtain
 - ▶ Brakes – test
- 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
 - ▶ GPS/Status Bar/Ann. Test
 - ▶ MFD Range/Track Up
 - ▶ Comm/Nav/VOR/FP
 - ▶ Mixture – rich
 - ▶ Throttle – 1800 RPM
 - ▶ Mags. – 150, 50
 - ▶ Engine Inst. – check
 - ▶ Idle Check
 - ▶ Throttle – 1000 RPM
 - ▶ Mixture – lean
 - ▶ Lights – as required
 - ▶ ADSB Handheld – on
- Pre-Takeoff
- ▶ Abort Plan/Lost Comm.
 - ▶ Fuel – on/both
 - ▶ Flaps – 0-10°
 - ▶ Mixture – rich
 - ▶ Aux. Pump – off
 - ▶ Pitot heat – as required
 - ▶ Review Airspeeds
 - ▶ Time – note/start

Takeoff

- ▶ "Lights, Camera, Action"
 - ▶ Mixture/Throttle
 - ▶ Engine Inst. – green
 - ▶ Vr – 55 kts
 - ▶ Vx – b2 kts, Vy – 74 kts
- Climb / Cruise
- ▶ Cruise Climb – 75-85 kts
 - Flaps – up
 - ▶ Mixture – lean >3000'
 - ▶ Flow Check (≈15 min)
 - Fuel, Trim
 - Flaps, Engine Inst.
 - Mixture, Throttle
 - Master, Mag., Pump
- Descent
- ▶ Mixture – richen slowly
 - ▶ Throttle – as required
 - ▶ Flow Check
- Pre-Landing
- ▶ ATIS/Rwys & Patterns
 - ▶ "CGMPSP"
 - G: Fuel – on/both
 - M: Mixture – rich
 - S: Seat Belts – secure
 - F: Flaps – as required
 - ▶ Trim – as required
 - ▶ Ldg. light – on
 - ▶ Approach – 80-b5 kts
- Post-Landing
- ▶ Throttle – 1000 RPM
 - ▶ Mixture – lean
 - ▶ Flaps – up
 - ▶ Pitot Heat – off
 - ▶ Trim – takeoff
 - ▶ Lights – as required
 - ▶ Clearance – obtain
- Shutdown
- ▶ ELT – check (121.5)
 - ▶ Avionics – off
 - ▶ Lights – off
 - Beacon – on
 - ▶ Throttle – 1000 RPM
 - ▶ Mags. – off then both
 - ▶ Mixture – idle cutoff
 - ▶ Mags. – key out
 - ▶ Master – off
 - ▶ Tach Time – note
 - ▶ Stby. Battery – off