

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 Yin v0.9)

Ground Operations

Initial

- ▶ Papers - A.R-0-W.
- ▶ Mags. - key out
- ▶ Electrical - off
- ▶ Avionics - off
- ▶ Essential Bus - off
- ▶ Mixture - idle cutoff
- ▶ Prop - high RPM
- ▶ Throttle - idle
- ▶ Master - on
- ▶ Flaps - check & set T/O
- ▶ Lights/Pitot - test
- ▶ Fuel Pump - check
- ▶ Fuel - note
- ▶ Master - off
- ▶ Controls - free & correct
- ▶ Hobbs Time - note

Walkaround

- ▶ Canopy/Door - check
- ▶ Fuel/Oil - test/sample
- ▶ Caps/Drains/Vents
- ▶ Stall Strips/Fairings
- ▶ Exhaust/Antennas
- ▶ Prop/Air Intakes x3
- ▶ Pitot/Static/Stall
- ▶ Struts/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
- ▶ Essential Bus - 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"
- ▶ Electric Pump - off
- ▶ "Prop Clear!"
- ▶ Mags. - start
 - Mixture - rich
- ▶ Throttle - 1000 RPM
- ▶ Oil Pressure - 15 secs.
- ▶ Fuel Pressure - 14-35 psi
- ▶ Master Alt. - on
- ▶ Volts/Amps - [25-30] [>0]
- ▶ Engine Inst. - no Xs
- ▶ 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

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

- ▶ 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)

- ▶ **V_r** = 59
- ▶ **V_{S0}** = 49, **V_{S1}** = 52
- ▶ Weights
 - 2646/2535/2205/1874 lbs
- ▶ **V_g** = 76/73/68/60
- ▶ **V_{y(Up)}** = 76/73/68/60
- ▶ **CLimb (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
- ▶ Steep Turn: <=45°, >=68

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 67-60 KIAS
 - ▶ Safe Altitude
 - ▶ **Prop** - 2400 RPM
 - ▶ **Pump** - off
 - ▶ Lights - as required
- Climb
- ▶ T/0: Vy = 67-54 KIAS
 - ▶ 68 minus 1.8 per 100 lbs under 264lb
 - ▶ Cruise
 - ▶ Flaps - UP
 - ▶ Airspeed = 76-60 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: 165-220°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 <108 KIAS
 - LDG <91 KIAS
 - ▶ Trim - as required
 - ▶ Lights - as required
 - ▶ Approach - 73-56 KIAS
- Go Around
- ▶ **Throttle** - full
 - ▶ Vy - 67-54 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: 76-60 KIAS**
 - ▶ Windmill: 1-8-8
 - ▶ Windmill: 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
 - ▶ **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/ann 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 - [E<2b] [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 - 62 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 - 80-65 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