

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

DA40-160 (Ted Yin v1.0)

Ground Operations

Initial

- ▶ Papers..... A.R.O.W.
 - ▶ Fire Extinguisher..... check
 - ▶ 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
- ▶ Fuel/Oil..... test/sample
 - ▶ Caps/Drains/Vents
 - ▶ Surfaces/Controls
 - ▶ Stall Strips/Fairings
 - ▶ Exhaust/Antennas
 - ▶ Prop/Air Intakes x3
 - ▶ Pitot/Static/Stall
 - ▶ Struts/Tires/Brakes
 - ▶ Ties/Chocks
 - ▶ Canopy/Door
 - ▶ Final Walkaround

Pre-Start

- ▶ Passenger..... brief
 - ▶ Rear Door..... secure
 - ▶ Canopy..... pos. 1/2
 - ▶ Seat Belts..... on
 - ▶ Brakes..... test/set
 - ▶ Circuit Brkrs..... check
 - ▶ Strobe (ACL)..... on
 - ▶ Avionics..... off
 - ▶ Essential Bus..... off
 - ▶ Mixture..... idle cutoff
 - ▶ Prop..... high RPM
 - ▶ Friction..... adjust
 - ▶ Master (Battery)..... on
 - ▶ Rudder Pedals..... adjust
 - ▶ GA000 DB Date..... check
 - ▶ Fuel Selector..... least
- Start
- ▶ Throttle..... 1.2"

- ▶ Electric Pump..... on
- ▶ Warm
- ▶ Mixture..... 1-3 sec
- ▶ Cold
- ▶ Mixture..... 3-5 sec
- ▶ Throttle..... 0.4"
- ▶ "Prop Clear!"
- ▶ Mags..... start
- ▶ Mixture..... rich
- ▶ Throttle..... 1000 RPM
- ▶ Mixture..... lean (peak)
- ▶ Oil Pressure..... 15 sec
- ▶ Electric Pump..... off
- ▶ Alternators..... on
- ▶ Engine Inst..... check
- ▶ Fuel Pressure..... 14-35 psi
- ▶ Volts/Amps..... 25-30V/2-75A

Pre-Taxi

- ▶ Flaps..... UP, then T/O
- ▶ Lights..... as required
- ▶ Avionics..... on/set
- ▶ Fuel Totalizer..... enter
- ▶ ATIS..... PFD/backup/AP(?)
- ▶ Radio..... test
- ▶ Transponder..... squawk
- ▶ Check..... TC/AL/HSI<->MC
- ▶ Clearance..... obtain
- ▶ Brakes..... release/test

Run-Up

- ▶ Brake..... set
- ▶ Seat Belts..... check
- ▶ Canopy/Door..... lock
- ▶ Door Warning..... off
- ▶ Flight Controls..... check
- ▶ Heading/Altitude..... set
- ▶ Com/Nav/FPL..... set
- ▶ Engine
- ▶ Fuel Selector..... fullest
- ▶ Mixture..... rich
- ▶ Throttle..... 2000 RPM
- ▶ Cycle Prop x3..... -250-500
- ▶ Mags. L/R..... +/-50
- ▶ Alternate Air..... check
- ▶ Indicators..... check
- ▶ Throttle..... idle
- ▶ Throttle..... 1000 RPM
- ▶ Mixture..... lean
- ▶ Each Tank..... 1 min, 1500
- ▶ Full Check (initial)
- ▶ Alternate Static..... check
- ▶ GPS/System/Ann..... check
- ▶ AP..... MET/HDG

Post-Flight

- ▶ MFD Range/Track Up..... set
 - ▶ Instruments..... scan
 - ▶ Lights..... as required
 - ▶ (ADSB Handheld..... on)
- Shutdown
- ▶ ELT..... check (123.5)
 - ▶ Avionics..... off
 - ▶ Electrical..... off
 - ▶ ACL Strobes..... on
 - ▶ Throttle..... 1000 RPM
 - ▶ Mags..... off then both
 - ▶ Mixture..... idle cutoff
 - ▶ Mags..... key out
 - ▶ Tach Time..... note
 - ▶ (Standby Alternator..... off)
 - ▶ Master..... off
- Post-Flight
- ▶ (ADSB Handheld..... off)
 - ▶ Flight Plan..... close
 - ▶ Hobbs Time..... note
 - ▶ Under Seats..... check
 - ▶ Gust Lock..... on
 - ▶ Pitot Cover..... on
 - ▶ Tiedowns/Chocks..... on
 - ▶ Canopy/Door..... lock
- Flooded Engine
- ▶ Electric Pump..... off
 - ▶ Mixture..... lean (full aft)
 - ▶ Throttle..... mid position
 - ▶ Mags..... start
 - ▶ When engine fires:
 - ▶ Throttle..... idle
 - ▶ Mixture..... rich (rapidly)
 - ▶ Finish up normal start
- Airspeeds (KIAS)
- ▶ **Vr**..... 59
 - ▶ **Vso**..... 49, **Vs1**..... 52
 - ▶ Mass..... 2646/2535/2205/1874
 - ▶ **Vg**..... 76/73/68/60
 - ▶ **Vy(Up)**..... 76/73/68/60
 - ▶ **Climb(T/O)**..... 67/66/60/54
 - ▶ Approach
 - ▶ Up..... 76/73/68/60
 - ▶ T/O..... 74/72/66/59
 - ▶ LDG..... 73/71/63/58
 - ▶ **Va**..... MAM 40-227
 - ▶ yes..... 111 @ 2646-2284
 - ▶ no..... 108 @ 2535-2161
 - ▶ o/w 94 @ below 2284/2161
 - ▶ Steep Turn: <=45°, >=68

In-Flight Operations

Pre-Takeoff

- ▶ Abort Plan/Lost Comm.
- ▶ Canopy/Door lock
- ▶ Trim T/O
- ▶ Fuel Selector fullest
- ▶ Flaps T/O
- ▶ **Mixture** rich
- ▶ **Prop** high RPM
- ▶ Pitot Heat as required
- ▶ (Air Conditioner off)
- ▶ Review Airspeeds
- ▶ Time note/start
- ▶ **Takeoff**
 - ▶ "Lights, Camera, Action"
 - ▶ **Electric Pump** on
 - ▶ Mixture/Prop/Throttle
 - ▶ Engine Inst. green
 - ▶ Vr 59, then 67-60
 - ▶ Safe Altitude
 - ▶ **Prop** 2400 RPM
 - ▶ **Pump** off
 - ▶ **Lights** as required
- ▶ **Climb**
 - ▶ T/O: Vy 67-54 KIAS
 - ▶ Cruise 76-60 KIAS
 - ▶ Flaps UP
 - ▶ **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** 23-24"
 - ▶ **Prop** 1800-2400 RPM
 - ▶ **Mixture** rich
 - ▶ Economy max EGT, <=75%
 - ▶ Best 100°F(59°C) lower
 - ▶ Higher Power richer
 - ▶ High Altitude **pump** on
 - ▶ Flow Check (↷15 min)
 - ▶ Trim, 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(10°C)/min.

Pre-Landing

- ▶ ATIS/Rwys/Approach Plan
- ▶ **CCGMPSTF**
 - ▶ **G** Fuel Selector
 - ▶ **M** **Mixture** rich
 - ▶ **P** **Pump** on
 - ▶ **P** **Prop** high RPM
 - ▶ **S** Seat Belts secure
 - ▶ **F** Flaps as required
 - ▶ T/O <100 KIAS
- ▶ LDG <91 KIAS
- ▶ Trim as required
- ▶ Lights as required
- ▶ Approach Speed 73-56
- ▶ (Air Conditioner off)
- ▶ Master
- ▶ Mags.
- ▶ Engine-off Landing
- ▶ **Stationary Restart**
 - ▶ Airspeed 80 KIAS
 - ▶ Electrical off
 - ▶ Avionics off
 - ▶ Master
 - ▶ Mags.
- ▶ **Engine-off Landing**
 - ▶ Fuel Selector off
 - ▶ **Mixture** idle cutoff
 - ▶ Mags.
 - ▶ Master
 - ▶ Belt and Seat check
 - ▶ Flaps LDG (when able)
 - ▶ Unlatch Door?/Brace

Go Around

- ▶ **Throttle** full
- ▶ Vy 67-54 KIAS
- ▶ Flaps T/O
- ▶ 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/O
- ▶ Lights as required
- ▶ Clearance obtain
- ▶ **C0 Contamination**
 - ▶ Cabin Heat off
 - ▶ Ventilation open
 - ▶ Emergency Windows open
 - ▶ Canopy open (partially)
 - ▶ DO NOT unlock rear door during flight)
- ▶ **Engine Failure**
 - ▶ Short Flow
 - ▶ 1. Fuel Selector fullest

2. **Mixture** full/check

- 3. **Pump** on
- 4. Alternate Air on
- 5. Mags.
- ▶ **Glide and Trim**
 - ▶ Airspeed 76-60 KIAS
 - ▶ Windmill 1.45m/1kft
 - ▶ Stationary 1.7m/1kft
- ▶ Wind and Landing Site
- ▶ Longer Flow
- ▶ Engine Inst. check
- ▶ Short Flow
- ▶ **Windmill Restart**
 - ▶ Airspeed 70-80 KIAS
 - ▶ Mags.
 - ▶ **Mixture** lean then slowly
 - ▶ richen
- ▶ **Stationary Restart**
 - ▶ Airspeed 80 KIAS
 - ▶ Electrical off
 - ▶ Avionics off
 - ▶ Master
 - ▶ Mags.

CL725-GL1000 (Ted v1.2)

Initial

- ▶ Papers A.R.0.W.
- ▶ Control Lock off
- ▶ Mags. key out
- ▶ Mixture idle cutoff
- ▶ Throttle idle
- ▶ Avionics off

Pre-Taxi

- ▶ 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

Run-Up

- ▶ Brakes set
- ▶ Seat Belts check
- ▶ Doors/Windows secure
- ▶ Flight Controls correct
- ▶ Instruments scan
- ▶ Ties/Baggage Door check
- ▶ AP MET/HDG
- ▶ Trim takeoff
- ▶ Fuel on/both
- ▶ Hdg/Alt. Bugs
- ▶ GPs/Status Bar/Ann. Test
- ▶ Circuit Brkrs. check
- ▶ Passenger brief
- ▶ Beacon on
- ▶ Avionics off
- ▶ Fuel both
- ▶ Mags.
- ▶ Engine Inst. check
- ▶ Idle Check
- ▶ Throttle 1000 RPM
- ▶ Mixture lean
- ▶ Lights as required
- ▶ ADBS Handheld on

Pre-Start

- ▶ Doors secure
- ▶ Belts/Seat Track
- ▶ Brakes check, set
- ▶ Circuit Brkrs. check
- ▶ Passenger brief
- ▶ Beacon on
- ▶ Avionics off
- ▶ Fuel both
- ▶ Mags.
- ▶ Engine Inst. check
- ▶ Idle Check
- ▶ Throttle 1000 RPM
- ▶ Mixture lean
- ▶ Lights as required
- ▶ ADBS Handheld on

Start

- ▶ Stby. Battery test/arm
- ▶ Engine Ind. no XS
- ▶ Volts [E>24] [M<1.5]
- ▶ Amps SCD/arm 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

Mixture 3/4 rich

- ▶ "Prop Clear!"
- ▶ Mags. start
- ▶ Throttle 1000 RPM
- ▶ Oil Pressure 30 secs.
- ▶ Volts/Amps [E>24] [M<1.5]
- ▶ Mixture lean for taxi

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
 - ▶ **CCGMPSTF**
 - ▶ **G** Fuel
 - ▶ **M**: Mixture on/both
 - ▶ **S**: Seat Belts secure
 - ▶ **F**: Flaps as required
 - ▶ Trim as required
 - ▶ Ldg. Light on
 - ▶ Approach
- ▶ **Post-Landing**
 - ▶ Throttle 1000 RPM
 - ▶ Mixture lean
 - ▶ Flaps up
 - ▶ Pitot Heat off
 - ▶ Trim takeoff
 - ▶ Lights as required
 - ▶ Clearance obtain

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
 - ▶ **CCGMPSTF**
 - ▶ **G** Fuel
 - ▶ **M**: Mixture on/both
 - ▶ **S**: Seat Belts secure
 - ▶ **F**: Flaps as required
 - ▶ Trim as required
 - ▶ Ldg. Light on
 - ▶ Approach
- ▶ **Post-Landing**
 - ▶ Throttle 1000 RPM
 - ▶ Mixture lean
 - ▶ Flaps up
 - ▶ Pitot Heat off
 - ▶ Trim takeoff
 - ▶ Lights as required
 - ▶ Clearance obtain

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
 - ▶ **CCGMPSTF**
 - ▶ **G** Fuel
 - ▶ **M**: Mixture on/both
 - ▶ **S**: Seat Belts secure
 - ▶ **F**: Flaps as required
 - ▶ Trim as required
 - ▶ Ldg. Light on
 - ▶ Approach
- ▶ **Post-Landing**
 - ▶ Throttle 1000 RPM
 - ▶ Mixture lean
 - ▶ Flaps up
 - ▶ Pitot Heat off
 - ▶ Trim takeoff
 - ▶ Lights as required
 - ▶ Clearance obtain