

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

DA40-1400 (Ted Yin v1.0)

Ground Operations

Initial

- ▶ Papers..... A.R.0-0-0.
- ▶ 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

- ▶ Rear Door ..... secure
  - ▶ Rudder Pedals ..... adjust
  - ▶ Seat Belts ..... on
  - ▶ 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 (Battery) ..... 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
  - ▶ Mags..... off then both
  - ▶ Oil Pressure ..... 15 secs.
  - ▶ Fuel Pressure ..... 14-35 psi
  - ▶ Master (Alternator) ..... on
  - ▶ Tach Time ..... note
  - ▶ Volts/Amps ..... 25-30V/2-75A
  - ▶ 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/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
  - ▶ Comm/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
  - ▶ Full Check (initial)
  - Alternate Static ..... check
  - GPS/System/Ann. .... check
  - AP ..... MET/HDG
- Shutdown
- ▶ ELT ..... check (123.5)
  - ▶ Avionics ..... off
  - ▶ Electrical ..... off
  - ACL Strobes ..... on
  - ▶ Throttle ..... 1000 RPM
  - ▶ Mags..... idle cutoff
  - ▶ Mixture ..... key out
  - ▶ Tach Time ..... note
  - ▶ 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
  - ▶ 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
  - ▶ **Vs0** ..... 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 Speeds
  - 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/0
- ▶ Fuel Selector ..... fullest
- ▶ Flaps ..... T/0
- ▶ **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 b7-60
  - ▶ Safe Altitude
  - ▶ **Prop** ..... 2400 RPM
  - ▶ **Pump** ..... off
  - ▶ **Lights** ..... as required
- ▶ **Climb**
  - ▶ T/0: Vy ..... b7-54 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** ..... 21-24"
  - ▶ **Prop** ..... 1800-2400 RPM
  - ▶ **Mixture** ..... Economy ..... max EGT, <=75%  
Best ..... 1000f(550C) lower  
Higher Power ..... richen
  - ▶ 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
- ▶ <= 500f(22.80C)/min.
- ▶ **Pre-Landing**
  - ▶ ATIS/Rwys/Approach Plan
  - ▶ "CGGMPFS"
  - ▶ **G** Fuel Selector
  - ▶ **M** **Mixture** ..... rich
  - ▶ **P** **Pump** ..... on
  - ▶ **P** **Prop** ..... high RPM
  - ▶ **S** Seat Belts ..... secure
  - ▶ **F** Flaps ..... as required
  - ▶ T/0 ..... <100 KIAS
  - ▶ LDG ..... <91 KIAS
  - ▶ Trim ..... as required
  - ▶ Lights ..... as required
  - ▶ Approach Speed ..... 73-56
  - ▶ (Air Conditioner ..... off)
- ▶ **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
  - ▶ Canopy ..... open (partially,
  - ▶ **D0 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 ..... check all
- ▶ **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 ..... both
  - ▶ **Mixture** ..... lean then slowly richen
- ▶ **Stationary Restart**
  - ▶ Airspeed ..... 80 KIAS
  - ▶ Electrical ..... off
  - ▶ Avionics ..... off
  - ▶ Master ..... on
  - ▶ Mags ..... **start**

Engine-off Landing

- ▶ Fuel Selector ..... off
- ▶ **Mixture** ..... idle cutoff
- ▶ Mags ..... off
- ▶ Master ..... off
- ▶ Belt and Seat ..... check
- ▶ Flaps ..... LDG (when able)
- ▶ 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

- ▶ Emergency Switch ..... on
- ▶ Master ..... off
- ▶ Cabin Heat ..... off
- ▶ Emergency windows ..... open
- ▶ Canopy ..... partially
- ▶ Land ASAP

CG225-61000 (Ted vl.2)

Initial

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

Fuel Shutoff

- ▶ 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 Brkrs. .... check
- ▶ Passenger ..... brief
- ▶ Beacon ..... on
- ▶ Avionics ..... off
- ▶ Fuel ..... both

- ▶ Stby. Battery ..... test/arm
- ▶ Engine Ind. .... no XS
- ▶ Volts ..... [E>24] [M<1.5]
- ▶ Amps ..... SCD/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>24] [E>11]
- ▶ 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/HSIC->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

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

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
  - ▶ "CGGMPFS"
  - ▶ 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