PRE START UP CHECKS

- 1. Brakes ON.
- 2. Area / direction CLEAR & SAFE.
- Harnesses and doors SECURE.
- 4. Loose Items STOWED.
- 5. Headsets ON.
- Carburettor heat SET.
- 7. Heater SET
- 8. Oil flap SET
- 9. Throttle FULLY CLOSED (friction set)
- 10. Flaps NEUTRAL.
- 11. Wing tanks BOTH ON.
- 12. Main fuel tap ON.
- 13. Magnetos OFF.
- 14. Master switch OFF.
- 15. All power switches OFF.

ENGINE START

- Master switch ON.
- 2. Hobbs reading RECORD.
- 3. Low Fuel Warning Lamp TEST.
- 4. Boost pump ON (for approx 5 secs, check pressure rises then OFF)
- 5. Throttle and choke AS REQUIRED.
- 6. Radio, Transponder and Gyro displays OFF.
- Strobes ON.
- 8. Area ALL CLEAR.
- Stick FULLY BACK!
- 10. Magnetos ON.
- 11. **Shout** "CLEAR PROP" pause 3 to 5 seconds.
- 12. Engine START (monitor oil pressure & rpm)
- 13. Choke OFF (if used) control RPM.
- 14. Power switches Switch ON:
 - Radio,
 - · Transponder,
 - Gyro (if required)
 - GPS supply (if required)
- 15. Landing lights OFF
- 16. Radio ON (Check / Set: Active, Standby and Vol settings)
- 17. Transponder ON (Check / Set: "STANDBY" & 7000)
- 18. Radio CALL & RECORD.
- 19. Taxi to run up area.

DURING TAXI

- 1. Speed MAX 8kts.
- 2. Controls DEFENSIVE POSITIONS.
- 3. Check BRAKES, STEERING, SLIP BALL, COMPASS.

PRE FLIGHT (VITAL ACTIONS)

- 1. Park IN TO WIND.
- Brakes ON.
- 3. Throttle 2000 RPM
- 4. Controls CHECK (full & free, correct sense, including flaps)
- 5. Harnesses and doors CHECK.
- 6. Loose items STOWED.
- 7. Flight instruments CHECK.
- 8. Engine Instruments CHECK.
- 9. Magnetos CHECK.
- 10. Idle CHECK (then return to 2000 RPM)
- 11. Fuel contents CHECK.
- 12. Wing tank taps CHECK.
- 13. Main fuel tap CHECK.
- 14. Boost pump ON.
- 15. Fuel pressure CHECK.
- 16. Flaps SET.
- 17. Trim SET
- 18. Transponder ACS
- 19. Landing Lights ON.
- 20. Oil flap SET.
- 21. Taxi to hold point.

PRE TAKE OFF FINAL CHECKS AT HOLD POINT

- 1. Check: Fuel, Flap, Trim, Transponder, Landing Lights, Ts & Ps and partially open oil flap.
- Check all clear for take off.
- 3. Log take-off time
- 4. Call "Lining up runway xx" pause.
- 5. Double check final approach.
- 6. Line up.
- 7. Check full power during take off roll (min 4700 RPM)

AFTER TAKE OFF

- 1. Monitor and control air speed before and during climb.
 - Minimum 48kts before climb.
 - 63 kts in climb for best AOC (V_x) 66 kts max (V_{fe})
- 2. Flaps neutral at 100 200 feet.
- 3. Climb out at 70 to 80 kts.
- 4. Engine temperatures and pressures Check within limits, regulate with oil flap as required.
- 5. Boost pump OFF above 2000 feet AGL (observe fuel pressure, be prepared to turn back on)

ON ROUTE: - FREDA - CHECKS

- Fuel Used, remaining, endurance.
- Radio Active and standby frequencies set as required.
- Engine Temperatures and pressures healthy, regulate oil flap.
- Direction Compass heading, DI set.
- Altimeter Correct pressure setting, planned altitude.

AIRFIELD APPROACH

- 1. Fuel sufficient for a go around.
- 2. Radio set to airfield frequency.
- 3. Call for airfield information.
- 4. Altimeter set to airfield QFE.
- 5. DI set to runway heading

OVERHEAD JOIN

- 1. Boost pump ON before descending below 2,000'.
- 2. Fuel sufficient.
- Carburettor heat To suit conditions.
- 4. Oil flap To suit conditions.
- 5. Call "Dead-side, descending for runway xx"
- 6. Look out for and integrate with circuit traffic.
- 7. Call "Joining x-wind for runway xx"

DOWNWIND

- 1. Make downwind call, abeam upwind threshold.
- 2. Monitor activity in circuit/runway (Visual and radio traffic).
- 3. 4000 4300 RPM clean (around 80 90kts dependent on circuit traffic) trim.
- Down-wind checks: BUMFFICH -
 - Brakes, firm and OFF.
 - Undercarriage. (fixed so N/A)
 - Mixture. (fixed so N/A)
 - Fuel, Sufficient for a go around, boost pump on, pressure healthy.
 - Flaps, check and consider.
 - Instruments, Flight and engine, Ts & Ps healthy.
 - Carburettor heat, set as required for conditions.
 - Harness & Hatches, secure.
- 5. Use drift to estimate relative wind speed and direction.

BASE LEG

- 1. Reduce power to approx 3000 RPM and raise nose to maintain level flight.
- 2. Flaps set stage 1 once below V_{FE}
- 3. Maintain level flight and allow speed to reduce to 63 kts.
- 4. Plan descent, (glide or powered) to 600-700' before BASE to FINAL turn.

FINAL

- Make FINAL call.
- 2. Power as required.
- 3. Speed 55 kts (or as required for glide, within flap limiting speed of 66kts)
- 4. Flaps set stage 2 as required
- 5. Short final 50 kts
- 6. Clear to land? **Be prepared to GO AROUND!**
- 7. Fully held off landing, with a nose high attitude at minimum speed, subject to wind.
- 8. Keep nose-wheel off ground as long as possible!

RUNWAY CLEAR CHECKS

- 1. Make runway vacated call.
- 2. Log landing time.
- 3. Log flight time from VSI.
- 4. Flaps up (neutral).
- 5. Boost pump OFF.
- 6. Landing Lights OFF.
- 7. Oil flap As required.

PRE SHUTDOWN

- 1. Brakes ON (Log time)
- 2. Power switches ALL (EXCEPT STROBES!) OFF
- 3. Magneto check at 2000 RPM.

SHUTDOWN

- 1. Magneto 1 OFF at 2000 RPM.
- 2. Throttle to Idle, magneto -2 OFF, at minimum revs, do not sustain low revs.
- Strobes OFF.
- 4. Test "Low Fuel Warning Lamp" ensure it illuminates.
- 5. Record Hobbs meter reading.
- 6. Master switch OFF, remove key.
- 7. Secure aircraft facing into wind.
- 8. Secure controls as required.

EMERGENCY SHUTDOWN

- T Throttle closed
- I Ignition and magnetos OFF
- F Fuel OFF
- **S** Security, Harnesses Hatches

EXTREME MANOEUVRE

- **H** Height sufficient
- **A** Airframe suitable
- **S** Security and loose items
- **E** Engine Temps and Pressures
- L Location
- L Lookout