

Cabin

- canopy secure, clean
- controls unlocked, seat belts
- flight manual tech log, airworthiness cert, radio licence
- compass & card
- emergency equipment, ELT
- controls & trim free
- mags. Off, throttle closed
- fuel valve on, tank selected
- master on, lights on, walk around, check lights & stall warning
- lights off
- fuel pump on, check pressure, pump off
- master off

Right Wing

- flap secure
- aileron free movement
- surfaces clean
- free of damage
- remove tie-downs, chocks
- main gear undamaged, tyre tread, brakes, oleo extension, spats secure
- check fuel drain

Nose

- cowl flap, check oil >4qts
- cowl secure
- exhaust secure
- windscreen clean
- nose wheel undamaged, tyre tread, oleo 50-80mm, spats secure
- air intakes clear
- prop & spinner clean
- alternator belt tight
- check cowling fuel drain

Left Wing

- check fuel drain
- pitot tube clear
- main gear undamaged, tyre tread, brakes, oleo extension, spats secure
- surfaces clean
- free of damage
- remove tie-downs, chocks
- aileron free movement
- flap secure

Empennage

- fuel quantity, endurance
- fuel cap locked
- fuel drain – clear, no water, no dirt
- left static vent clear
- horizontal stabiliser free movement, surface clean
- rudder movement, surface clean
- tail section screws & cables
- luggage door closed

Passenger Briefing

- Emergency equipment location & use : ELT, extinguisher, first aid, axe
- Outside : keep behind wings, clear of prop
- Cabin entry & exit
- Canopy emergency release
- Headset, use of radio push to talk
- Stowage pockets, airsick bags
- Seats, belts (always secure)
- Keep clear of controls – stick, rudder
- Lifjacket use if equipped
- Assist with traffic lookout
- Notify pilot of dizziness, nausea, toilet, etc.

Engine Start

- parking brake set
- seat belts fastened
- check circuit breakers
- avionics switch off
- mixture full rich
- carb heat off
- throttle full movement, set ¼" open
- prime as required
- fuel on lowest tank
- master on
- fuel pump on, check pressure
- clear area
- start with mag switch
- throttle 1200 rpm
- oil pressure positive
- check instruments
- fuel pump off

After Start

- avionics on
- lights on
- set & check radio
- transponder standby, check code
- release brake for taxi

Run-Up

- parking brake set
- fuel pump on
- select other tank (fullest)
- mixture full rich
- check Ts & Ps
- throttle 2000rpm
- carb heat check : min drop 20rpm, max 200rpm
- mag check : max drop 175 rpm, diff. 50Rpm
- vacuum/suction gauge
- ammeter
- throttle idle – 600-700rpm
- release brake & taxi to holding point

Take-off

Holding point checks:
 TMPFFIHCTR
 Line-up checks:
 RTLWDR
 Full throttle, keep straight
 Rotate 55 kts
 Best angle climb 64 kts
 Clean-up – flaps, fuel pump
 Best rate climb 74 kts

Max Performance

Take-off

Holding point checks
 TMPFFIHCTR
 Note +ve acceleration point
 Note rotate point
 Line-up checks
 RTLWDR
 Hold brakes
 Throttle 2000rpm
 Cycle Carb heat
 Full throttle, min 2300rpm
 Release brakes, keep straight
 Begin Rotate 55kts
 Best angle climb 64 kts
 Clean-up – flaps, fuel pump
 Best rate climb 74 kts

Cruise, Climb

Cruise 2400-2450rpm
 Approx 90 kts

Approach, Landing

Downwind checks
 BUMFHW
 Carb. Heat On
 Throttle 1800rpm
 Check white arc
 Flaps 10, lookout, turn base
 Throttle as required
 Speed 75 kts
 Turn Final
 Full flaps 35
 Speed 63 kts
 Short final : carb heat off

Precision Landing

Downwind checks
 BUMFHW
 Pick touch-down point,
 identify short finals area
 Carb. Heat On
 Throttle 1800rpm
 Check white arc
 Flaps 10, lookout, turn base
 Throttle as required
 Flaps 20
 Speed 70 kts
 Turn Final
 Full flaps 35°, 64 kts
 Short final : carb heat off

Speeds

Stall, full flap (V_{so}) 47 kts
 Stall, clean (V_{s1}) 53 kts
 Take-off rotate 55 kts
 Best angle climb 64 kts
 Best rate climb 74 kts
 Normal climb 90 kts
 Normal Cruise (V_{no}) 126 kts
 Best glide distance 75 kts
 Approach 74 kts
 Final 64 kts
 Precision Landing 64 kts
 Max flap (V_{fe}) 103 kts
 Max Manoev. (V_a) 88-111 kts
 Never exceed (V_{ne}) 160 kts
 Max crosswind 17 kts

Transponder Codes

xxxx – Aircraft discreet code
 yyyy – Flight plan assigned code
 1400 – Local Circuit VFR
 1200 – Local Area VFR
 7500 – Unlawful interference
 7600 – Radio failure
 7700 – Emergency

Local Frequencies

North Shore 118.0
 Emergency 121.5
 Kaipara/Parakai 119.1
 Gulf/City 120.4
 Whenuapai ATIS 128.3
 Whenuapai TWR 134.5
 Auckland ATIS 127.8
 Auckland TWR 118.7

Emergencies

Refer to Operating Handbook

Engine fire at start

Starter : engage
 Mixture : idle/cutoff
 Throttle : full open
 Fuel pump : off
 Fuel selector : off

Engine fire in flight

Increase airspeed
 Fuel pump off
 Fuel selector off
 Throttle closed
 Mixture idle/cutoff
 Magnetos off
 Land ASAP

Smoke/Electrical fire

Master off
 Electrical equipment off
 Floor vents open
 Cabin heat off
 Land ASAP

Low oil Pressure

Land ASAP
 Prepare for engine failure

High Oil Temperature

Mixture full rich
 Land ASAP
 Prepare for engine failure

Low fuel pressure

Fuel pump on
 Fuel selector switch tanks
 Check fuel pressure
 Prepare for engine failure