EXPANDED CHECKLIST
CESSNA 150 NORMAL OPERATIONS

PREFLIGHT CHECK

CABIN CHECK

FIRST AID KIT.....CHECK
Check date of validation and securing

FIRE EXTINGUISHER.....CHECK
Check securing, date of validation and pressure in green arc.

CONTROL LOCK.....REMOVE
Remove and stow

TRIM.....CHECK / SET
Check visually movement of elevator trim-wheel and trim plate by turning the trimwheel to both ends. Set for takeoff.

ELECTRICAL SWITCHES.....OFF
Check radios and all electrics have been switched off.

MAGNETOS.....OFF
Check magneto switch is in OFF-position and key stowed.

MASTER SWITCH.....ON
Switch main power on

FUEL GAUGES.....CHECK
Check fuel level and proper operation of fuel gauges. **NOTE! Fuel must also be checked by dipstick!**

CARB. AIR TEMP. INDICATOR.....CHECK
Check operation of carburetor heat indicator. Indication should be the same as outside air temperature.

OVER / UNDER VOLTAGE WARNING.....CHECK
Check ammeter. It should indicate slight discharge (-)

LIGHTS / PITOT HEAT.....CHECK
Check navigation lights, beacon and landing / taxilight operation. Check operation of pitot heat.

FLAPS.....DOWN
Select flaps down. Visually check indicator reading and full unobstructed movemet of both flaps.

MASTER SWITCH.....OFF
Turn master switch off.

EXTERNAL CHECK

FUEL.....CHECK
Check amount of fuel in both wing-tanks with a dipstick marked with a/c registration. Compare that reading with fuel gauges. Drain moisture and sediment from both tanks and sump drain under engine cowling / fuselage. Keep draining until fuel sample is clear.

LEFT TAIL SECTION.....CHECK
Check left side of tail section. Check condition of windows and antennas. Remove snow, ice and other contamination.

EMPENNAGE.....CHECK
Check general condition of empennage. Check free movement of vertical and horizontal control surfaces and trim plates. Compare movement with movement of flight controls. Check condition of hinges. Check all pins and securing wires are intact.

RIGHT TAIL SECTION.....CHECK
Check as left tail section.

RIGHT WING. .....CHECK
Check general condition of right wing and antennas. Remove all contamination like snow, ice etc. Check play of wing flap. Check proper movement of aileron and mounting of counterweights. Check there's no water, ice or other contamination inside of the aileron. Check condition of hinges, pins and securing wires.

RIGHT MAIN GEAR / BRAKE.....CHECK
Check general condition of right main landing gear. Seek for hydraulic leaks. Check condition of tire, brake disc and brake pads. Check tire pressure.

NOSE SECTION .....CHECK
Check general condition of nose section. Check condition and cleanliness of windshield. Check general condition of propeller, spinner and airfilter. Check engine and avionics cooling intakes for foreign objects and, especially during springtime, for birds and birdnests! Check engine oil level (min. 4 qts) and oil leaks. Check general condition and movement of nose landing gear (there should be 5-10 cm of visible bright metal in nose strut). Check condition and pressure of tire.

STATIC PORT OPENINGS….....CHECK
Check static pressure openings for contamination. If clogged, always contact certified maintenance personnel to clean it!.

LEFT MAIN GEAR.....….CHECK
Check as right main landing gear.

LEFT WING.....….CHECK
Check as right wing previously. Check condition of pitot tube and fuel tank ventilation pipe. Check operation and condition of stall warning system (place a piece of clean cloth over the stall warning hole and suck with your mouth: operational stall warning should make a sound)

BEFORE ENGINE START

PREFLIGHT CHECK .....PERFORMED
Preflight check performed and found aircraft airworthy.

DOCUMENTS.....ONBOARD
Check that aircraft journey logbook and related documents are onboard. Check all crew documents and operational documents including weather, NOTAM etc, are onboard.

PASSENGER BRIEFING.....PERFORMED
Idea of this briefing is to inform passenger(s) what to expect in various stages of flight. Most important part is ”In case of emergency”, and to inform, where to touch and where not to. Passenger briefing is mandatory whenever passenger(s) are onboard.

- Use of seatbelts
- How to close and open doors
- Evacuation
- Location of first aid kit
- Location of fire extinguisher
- Actions in emergency
- No smoking
- Use of mobilephones is prohibited
- Use of life vests

SEATS / SEAT BELTS.....ADJUSTED
Adjust and lock seats and seatbelts.

DOORS AND WINDOWS….....CLOSED
Close and latch doors and windows (in hot days windows may be opened during taxi)

RADIOS AND EL. EQUIPMENT.....OFF
Check all switches are in OFF position.

CIRCUIT BREAKERS.....CHECK
Check all circuit breakers and fuses. All Cbs should be down, ”armed”. If glass tube fuses, check all fuses are intact.

PARKING BRAKE.....AS REQUIRED
Use if needed. Make sure aircraft remains stationary during engine start up.

ENGINE START

FUEL SELECTOR.....OPEN
Check fuel selector OPEN.

CARB HEAT. .....COLD
Check carburetor heat lever is fully pressed to front position.

THROTTLE.....OPEN 1 CM
Pull throttle lever full back. Then open (push in) approximately 1 cm for start up.

MIXTURE.....RICH
Push mixture lever to full front position.

MASTER SWITCH.....ON
Turn master switch on (only battery, no alternator)

BEACON.....ON
Switch beacon on. Visually inspect.

PROP.....CLEAR
Before engine start, make sure there's nobody or nothing in front of, aside or behind an aircraft, that can be hurt, damaged or misplaced due spinning propeller or propeller slipstream.

STARRED ITEMS BY HEART!

***PRIME.....AS REQUIRED**
In warm weather 2-3 full strokes, cold weather 3-5 full strokes. NOTE! Engine should be started immediately after priming due to fuel leak from intake manifold.

***ENGINE STARTER.....ENGAGE**
Turn starter key to START position and press inwards to engage starter. Release key to BOTH position after engine has fired up.

***OIL PRESSURE.....CHECK**
Within 30 seconds after starting the engine, oil pressure should rise to green arc. If it won't rise, cut off engine and report to mechanician. DO NOT RESTART! Remember that in cold weather it takes much more time to rise due to very cold engine and motor oil.

***RPM.....ADJUST**
Adjust engine RPM to 1000rpm, or close to that, so engine runs smoothly. In cold weather 1000 – 1300 rpm.

***ALTERNATOR.....ON**
Switch alternator on and check charging

AFTER ENGINE START

BATTERY CHARGING.....CHECK
Check positive charging(+)

PRIMER.....IN AND LOCKED
Check primer pump is fully pushed in and twist to lock.

FLAPS.....UP
Select flaps up. Visually check even and uninterrupted movemet of both flaps. Check flap indicator reading.

RADIOS / NAV AIDS.....ON / SET / ATIS
Switch radios and electrical equipment on. Transponder to STBY and tune radio frequency as required. Listen and copy ATIS.

FLIGHT INSTRUMENTS.....CHECK / SET
Check and set flight instruments as described in C150 SOP Instrument check 1:

Airspeed indicator (ASI) should read zero.
Check artificial horizon (AH) and compare to horizon level.
Set Altimeter (ALT) to local QNH and verify against local elevation.
Check Turn and Slip / inclinometer freedom and correct action
Set directional gyro (DG) against magnetic compass
Check Vertical speed indicator (VSI) reading and note possible difference

EMERGENCY PROCEDURES.....PERFORMED
Read out loud ”Emergency procedures” (Aborted takeoff, ground emergency, engine power loss in flight, forced landing).

LIGHTS.....AS REQUIRED
Switch on lights as required.

TAXIING

***BRAKES AND STEERING.....CHECK**
Check brakes by pressing toebrakes after aircraft has started to move. Brakes should feel even and effective. During taxi, check steering by pressing pedals to confirm proper function.

***FLIGHT INSTRUMENTS.....CHECK**
Perform Flight instruments check as described in SOP ”Instrument check 2”.

RUN UP

ENGINE OIL TEMP.....CHECK
Check oil temp is in green arc.

MIXTURE.....RICH
Set mixture full rich (full forward).

RPM.....1700 RPM
Set power to 1700 rpm. Engine should accelerate smoothly and run steadily.

MAGNETOS.....CHECK
-Check left magneto by switching starter key to ”LEFT” detent. Rpm drop should be checked against the POH. Engine run should be smooth and steady. Turn key back to BOTH. Rpm should retun to 1700rpm.
-Check right magneto by switching starter key to ”RIGHT” detent. Rpm drop should be checked against the POH. Engine run should be smooth and steady. Turn key back to BOTH. Rpm should retun to 1700rpm.
-Check difference between rpm drop from left and right magnetos. Difference should be checked against the POH. Leave starter key to BOTH position.

CARB HEAT.....CHECK
Open carburettor heat (pull fully back). Note drop in rpm and temperature rise in carburetor heat indicator. Push Carburetor heat fully foreward to close it.

ENGINE INSTRUMENTS.....CHECK
Check all engine instruments are in green arc.

SUCTION.....CHECK
Check vacuum indicator in green arc.

IDLE RUN.....CHECK
Fully retard power lever to see idle power rpm. Engine should run when fully idle. Reset power to 800 – 1000 rpm.

CIRCUIT BREAKERS.....CHECK
Check circuit breakers and fuses are intact.

FLIGHT CONTROLS.....FREE / MOVEMENT
Check flight controls freedom to all detents. Visually check proper movement of control surfaces.

FLAPS.....SET
Set flaps for take off (normally UP. For short or soft field takeoff, use 10° of flaps)

TRIM.....SET FOR T/O
Check / set trim for takeoff

DOORS AND WINDOWS .....CLOSED LATCHED
Close and latch all windows and doors.

TAKEOFF BRIEFING.....PERFORM
Perform Takeoff briefing as described in C150 SOP.

LINE UP

***PITOT HEAT.....AS REQUIRED**
Switch pitot heat on as required. Use of pitot heat is necessary in rain amd in icing conditions. NOTE! Flying into known icing is prohibited with C150!

***TRANSPONDER.....ALT**
Set transponder to ALT position for altitude encoding.

***DIRECTIONAL GYRO.....CHECK**
In runway centerline, check reading of directional gyro. Reset if required.

AFTER TAKEOFF

***FLAPS.....UP**
Select flaps up in safe altitude and safe speed.

***CLIMB POWER.....SET**
Set climb power as described in POH. Lean mixture above 3000 ft as described in POH.

***ALTIMETER.....CHECK / SET**
If climbing over 5000 ft, set standard pressure 1013 mb to altimeter.

CRUISE

CRUISE POWER.....SET
Accelerate to cruise speed with climb power. When reaching cruise speed, set cruise power according to POH.

MIXTURE.....SET
Lean mixture as precribed by POH.

ENGINE GAGES.....CHECK
Check engine gages in green arc.

APPROACH

MINIMUM SAFE ALTITUDE.....CHECK
Check MSA from approach chart.

ALTIMETER.....SET
Set local QNH to Altimeter.

APPROACH BRIEFING.....PERFORM
Perform approach briefing as described in C150 SOP.

NAV AIDS.....SET
Set Nav aids as required.

FINAL CHECK

***MIXTURE.....RICH**
Ensure mixture lever is fully pushed to front

***CARBURETOR HEAT.....ON**
Confirm carburetor heat is ON (Lever fully pulled to back detent)

***LANDING FLAPS.....SET**
Set flaps for landing. As required.

AFTER LANDING

***TRANSPONDER.....STBY**
When out of RWY, set transponder to STBY position.

***CARBURETOR HEAT .....OFF**
Push carburetor heat to OFF. Push to front detent.

***FLAPS.....UP**
Select flaps up

***PITOT HEAT.....OFF**
Switch pitot heat OFF.

PARKING

LIGHTS.....OFF
Switch navigation and taxi / landing light off.

PARKING BRAKE.....AS REQUIRED
Set parking brake as required. Leave parking brake on ONLY for short periods due to possibility of brake jamming.

RADIOS / EL SWITCHES.....OFF
Switch off all radios and electrical equipment.

MIXTURE.....CUT OFF
Pull mixture lever to cut off (fully back) to shut down engine.

MAGNETOS.....OFF
After shutdown and when propeller has fully stopped, select magnetos OFF. Remove keys from ignition switch.

BEACON.....OFF
Switch beacon OFF.

MASTER SWITCH / ALTERNATOR.....OFF
Switch master and alternator OFF.

FLIGHT CONTROLS.....LOCK
Set control lock.

WHEEL CHOCKS / TIEDOWNS.....SET

FLIGHT PLAN.....CLOSE ATC / Tel.
Ensure your flight plan is closed either by ATC or by calling EFIN ACC