CESSNA C152 II CHECK LIST

Pilots Name…….

JP Logistics Cessna C152II

For Flight Simulation purposes only.
Not to be used for real world flight.

Written by Gray Brett GB Air Taxi

PRE FLIGHT

PILOT	Fit for flight, Licence valid, Current & Applicable to type sufficient experience on type Medical certificate current
AIRCRAFT DOCUMENTS	All aircraft documentation complete to date. Check current certificates of airworthiness & maintenance etc.
WEATHER	Check departure aerodrome, local, en-route & destination actuals & forecasts
FLIGHT PLANNING	Flight log completed & flight plans (if necessary) AIP, AIC, NOTAMS, Amendments & Bulletins checked. Prior permissions obtained
FLIGHT GUIDE	Readily accessible. Check current issue & amendments applicable to route coverage including alternates
CHARTS	Readily accessible. Check current issue & amendments applicable to route coverage including alternates
WEIGHT & BALANCE	Centre of gravity, weight & Balance calculations completed & checked to be within limits (passengers, baggage & fuel)
NAVIGATION ACCESSORIES	Computer, scale, protractor, plotter, pencils & pens etc.
SURVIVAL EQUIPMENT	Readily accessible life jackets, life raft, E.L.T. transceiver, flares, rations etc.
DEPARTURE / BOOK OUT	Register departure in writing or verbally with departure aerodrome. Complete aircraft technical log and journal log book
PASSENGER BRIEFING	Passengers fully briefed on emergency, safety & comfort procedures

PRELIMINARY & EXTERNAL Aircraft unobstructed for taxying. No fuel, oil, or hydraulic spillages. All ice and frost removed from aircraft surfaces (external & internal) Tie downs, pitot covers, external control lock, covers & chocks removed and stowed (Where modelled).

IN CABIN	
CONTROL LOCKS & COVERS	Removed and stowed (Locks not modelled. Ground equipment via tablet)
MAGNETO SWITCHES	Switch to Both, then OFF then key removed (Key removal not modelled)
PARKING BRAKE	On
RADIO/NAV EQUIPMENT	Off
BATTERY MASTER SWITCH	On
BEACON	On, check operation then Off
PITOT HEAT	On, check operation then Off (Heat check not modelled)
NAV/LANDING LIGHTS/STROBES	On, check operation then Off
FLAPS	Check operation & symmetry, set fully down
FUEL CONTENTS/GAUGES	Check
MASTER/ALTERNATOR SWITCHES	Off
FUEL COCK	On
TRIMMER	Operate fully forward, fully aft. Check correct sense. Reset to neutral
FIRST AID KIT	Check contents, condition and expiry dates. Check secure and accessible (Not modelled)
FIRE EXTINQUISHER	Check condition, gauge in the green, seal & date. Check secure and accessible (Not modelled)
EXTERNAL	
PORT UNDERCARRIAGE	
LEG & FAIRING	Check undamaged & general condition
TYRE	Check undamaged, inflation & creep marks aligned
HYDRAULIC LINE & PADS	Check joints & no leaks
DISC BRAKE & PADS	Check for pitting, wear & cracks
WHEEL NUT	Check security /Split pin

EXTERNAL continued	
PORT WING	
STRUT	Condition & security
FLAP	Condition & linkages
AILERON	Condition, linkages, hinges and full & free movement
WING TIP	Condition & security, navigation lights & strobes
WING SURFACE	Condition, upper & lower
LEADING EDGE	Condition & indentations checked
FUEL TANK	Contents visually checked. Fuel cap & drain checked (Not modelled)
FRONT FUSELAGE & ENGINE	
PORT COWLING	Condition security, Static vent clear
WINDSCREEN	Clean
NOSE LEG	General condition, oleo extension, torque link, damper, nuts & split pins
NOSE WHEEL	Check undamaged, inflation & creep marks aligned
FRONT COWLING	Condition & security, intakes clear & landing light
PROPELLER / SPINNER	Security, condition particularly leading edge & tips
STARBOARD COWLING	Condition & security, oil contents, fuel strained if applicable (Not modelled)
FUEL DRAIN	Under cabin position (if fitted) (Not modelled)
STARBOARD WING	
FUEL TANK	Contents visually checked. Fuel cap & drain checked (Not modelled)
LEADING EDGE	Condition & indentations checked
WING SURFACE	Condition, upper & lower
WING TIP	Condition & security, navigation lights & strobes
AILERON	Condition & linkages, hinges & full & free movement
FLAP	Condition & linkages
STRUT	Condition & security

EXTERNAL continued	
STARBOARD UNDERCARRIAGE	
LEG & FAIRING	Check undamaged & general condition
TYRE	Check undamaged, inflation & creep marks aligned.
HYDRAULIC LINE & PADS	Check joints & no leaks
DISC BRAKE & PADS	Check for pitting, wear & cracks
WHEEL NUT	Check security /Split pin
STARBOARD FUSELAGE	
SKIN	All over condition, check for wrinkles & cracks
AERIALS	Secure & undamaged
DOOR	Secure & undamaged. Latches & hinges secure & operational
WINDOWS	Undamaged & clean
LOWER FUSELAGE	Check. Rain holes clear
TAIL UNIT	
STARBOARD TAILPLANE	Condition & security
STARBOARD ELEVATOR	Condition, linkages, full & free movement
TRIM TAB	Condition & linkages
FIN	Conditions, security, fairings, aerials & beacon
RUDDER	Condition, linkages, nuts, split pins, navigation lights, full & free movement
PORT ELEVATOR	Condition, linkages, full & free movement
PORT TAILPLANE	Conditions & security
PORT FUSELAGE	
SKIN	All over condition, check for wrinkles & cracks
AERIALS	Secure & undamaged
DOOR	Secure & undamaged. Latches & hinges secure & operational
WINDOWS	Undamaged & clean

INTERNAL AND STARTING

INTERNAL	
SEAT	Adjusted & locked (Check in sim cam view & Head Tracking where used)
DOORS & WINDOWS	Secure
HARNESSES	Adjusted & secure (Not modelled)
PARKING BRAKE	On
RADIOS	Off
INSTRUMENTS	Legible, serviceable & correct readings, no broken glass
FLYING CONTROLS	Full & free movement, correct sense
TRIM	Full & free movement, set for take off
CABIN HOT/COLD AIR CONTROL	Close, Off (Controls pushed in, air temperature modelled for ice removal)
MIXTURE	Full & free movement, set fully rich
THROTTLE FRICTION	Check, set finger tight (Not modelled)
THROTTLE	Full & free movement, set ¼" open
CARBURETTOR HEAT	Full & free movement, set cold (Control pushed in)
MAGNETOS	Off
BATTERY MASTER SWITCH	On, alternator remains off
CIRCUIT BREAKERS	In & secure, check spares available (Spares not modelled)
FUEL COCK	Check On, check contents
STARTING	
BEACON	On, include NAV lights at night
PRIMER	Prime as required (3 for cold engine) then lock (Lock mechanism Not modelled)
LOOK OUT	With care all around. Through open window call aloud **'CLEAR PROP'**
MAGNETOS	Key in, operate starter. Release key when engine starts
ALTERNATOR	On

AFTER STARTS, TAXYING, POWER & PRE TAKE OFF

AFTER STARTING	
STARTER WARNING LIGHT	Out, if not shut down engine
OIL PRESSURE	Rising within limits, within 30 secs, if not shut down engine
RPM	Set to 1200 & check brakes holding
AMMETER	Charging (Will read zero or higher when charging)
SUCTION	Between 4" – 5"
MAGNETOS	Check left & right, max drop 125 RPM in each, max difference between each 50 RPM
FLAPS	Up in stages, check symmetrical operation & indicator
FLIGHT INSTRUMENTS	Set as required
RADIOS	Tuned and checked. Obtain ATIS or aerodrome information whichever is available. Obtain taxi instructions
TAXYING	Lights as required
BRAKES	Check operation & differential as soon as possible
RUDDER	Check movement & nose wheel caster
FLIGHT INSTRUMENTS	Check in turns – DI, Compass, Turn Coordinator, AI
POWER	
POSITION	Into wind where possible, Clear behind & all around, surface checked for loose debris
PARKING BRAKE	On, set RPM 1200, check brakes holding
ENGINE TEMP & PRESSURE	Within limits
RPM	Set 1700, check brakes remain holding
CARBURETTOR HEAT	Set to hot, max drop 175 RPM, set cold
MAGNETOS	Check left & right, max drop 125 RPM in each, max difference between each 50 RPM
SUCTION	Check between 4 ½" & 5 ½" (Within green arc)
AMMETER	Charging (Will read zero or higher when charging)
ENGINE TEMP & PRESSURE	Within limits
RPM	Slowly reduce to idle, Check RPM between 600 & 750, Check min oil PSI, 1st red mark. Reset RPM 1200

VITAL ACTIONS, TAKE OFF & AFTER TAKE OFF

PRE TAKE OFF VITAL ACTIONS	T.T.M.M.P.P.F.F.I. - H.H.C.C.
TRIM	Set for take off
THROTTLE FRICTION	Set finger tight (Not modelled
MIXTURE	Rich
MAGNETOS	On Both
PITOT HEAT	As required
PRIMER	Locked (Not modelled
FUEL	Check sufficient
FLAPS	As required
INSTRUMENTS	AI, DI & Altimeter set, QNH/QFE, T's & P's in green
HATCHES	Doors, windows closed & secure
HARNESSES	Fastened, adjusted and seat secure
CARBURETTOR HEAT	Re check, Set cold
CONTROLS	Full & free movement
TAKE OFF	REPORT READY FOR **DEPARTURE**
LOOKOUT	Approach, take off & taxi paths clear, ATC T/O clearance received,
ON RUNWAY	Landing light on as required, Transponder set ALT, DI set for RWY HDG, Cross checked with compass,
RPM	Full power
ENGINE	T's & P's within limits
AIRSPEED	Check ASI increasing
AFTER TAKE OFF	
FLAPS	Up in stages after 300ft if used
ENGINE	T's & P's within limits
RADIOS	Set for ATC as required, set NAV/OBS as required
ALTIMETER	Check QNH/QFE as required

STALLING, AEROBATIC, RE-JOIN & PRE LANDING

PRE-STALL AEROBATIC	H.A.S.E.L.L
*HEIGHT	Sufficient to recover by 3000ft AGL
AIRFRAME	Flaps as required
SECURITY	Hatches & harnesses secure & fastened, seat latched, no loose articles
*ENGINE	Mixture rich, T's & P's in the green, Carburettor icing check
*LOCATION	Clear of cloud, airfields, built up areas, all controlled airspace
*LOOKOUT	Visual complete turn, check for aircraft especially below, Use all persons on board
CONTINUED STALL/AEROBATIC	
H.E.L.L	Use H.E.L.L checks as above marked *
CRUISE, APPROACH & RE-JOIN	**F.R.E.D.A.**
FUEL	On & sufficient, Including alternate
RADIOS	Set correct frequency, ATIS, joining instructions obtained & fully understood
ENGINE	Mixture rich, T's & P's in green, Carburettor icing, ammeter & suction all checked
DIRECTION	DI synchronised with compass, runway in use
ALTIMETER	Set QNH/QFE as required
PRE LANDING CHECKS	
BRAKES	Off
UNDERCARRIAGE	Fixed down
MIXTURE	Rich
FUEL	On & sufficient, Including alternate
INSTRUMENTS	T's & P's in green, Altimeter set
CARBURETTOR HEAT	Checked, set as required
HATCHES	Secure & Fastened
HARNESSES	Secure

GO AROUND, AFTER LANDING, SHUT DOWN

GO AROUND	
THROTTLE	Full power, position parallel abeam runway
CARBURETTOR HEAT	Set cold
FLAPS	Retract to 20^0 if necessary, thereafter in stages at safe height
RADIO	Report GOING AROUND, obtain ATC instructions
AFTER LANDING	**VACATE RUNWAY & STOP**
CARBURETTOR HEAT	Set cold
FLAPS	Fully retract
THROTTLE FRICTION	Loosen (Not modelled)
ELECTRICS	Non essentials off
RADIOS	Non essentials off
SHUT DOWN	
POSITION	Park into wind – nose wheel straight & without obstructing other aircraft
PARKING BRAKE	Applied
RPM	Set 1200 for 30 secs
MAGNETOS	Check both
RADIO	Off
THROTTLE	Close
MIXTURE	Idle cut off
MAGNETOS	Off, key out (Key out Not modelled)
ELECTRICS	Off
BATTERY MASTER	Off
ALTERNATOR	Off
CABIN	Secure windows & doors closed
AIRCRAFT	Chocks, covers and tie downs positioned & secured (Chocks, Pitot cover, Engine covers modelled via tablet selection)

EMRGENCIES

FIRE ON THE GROUND	If taxying & If possible stop clear & upwind of other aircraft, fuel amenities, persons etc.
THROTTLE	Closed
MIXTURE	Idle cut off
FUEL	Off
MAGNETOS	Off
BATTERY/ALTERNATOR SWITCH	Off
PARKING BRAKE	On

EVACUATE AIRCRAFT WITH FIRE EXTINQUISHER IF POSSIBLE TO SAFE DISTANCE UPWIND

ENGINE FIRE AIRBOURNE	
THROTTLE	Closed
MIXTURE	Idle cut off
FUEL	Off
MAGNETOS	Off
CABIN HEATER/DEFROST	Closed
RADIO	Mayday call if able, Squawk 7700 (R.I.P.L.H. see page 11)
FORCED LANDING	Initiate forced landing without power

DO NOT ATTEMPT ENGINE RESTART

CABIN FIRE IN THE AIR	
MASTER SWITCH	Off if electrical fire suspected
ELECTRICAL CIRCUITS	Off as required
FIRE EXTINQUISHER	Use as necessary then ventilate cabin
LANDING / DIVERSION	Initiate emergency landing or diversion as applicable, consider MAYDAY or PAN call to ATC

EMERGENCIES Continued

MAYDAY & PAN CALLS	Rest. In. Peace. Loui. Hoy
INITIATING	MAYDAY - MAYDAY - MADAY or PAN-PAN-PAN, Call sign on active frequency or 121.50
REASON	State reason for call
INTENTIONS	State if returning, diverting, initiating forced landing or maintaining station
POSITION	State position as accurate as able
LEVEL/ALTITUDE	State whether maintaining level or descending
HEADING	State heading if able or orbiting

RADIO FAILURE	
RADIO	Check frequency, volume, on/off switches, squelch & avionics selector
HEADSET/HAND HELD MICROPHONE	Check & swap headsets / hand microphone, plug attachments & security
TRANSPONDER	Set 7600
PROCEDURE	Initiate non radio, speechless, blind transmission procedure as applicable

ELECTRICAL FAILURE	
ELECTRICAL LOAD	Reduce by shedding all non-essentials
FIELD / OUTPUT	Check, reset circuit breakers
AMMETER / VOLTAGE	Check meter
MASTER SWITCH	Off for 3 secs then On

IF OUTPUT IS RESTORED MAINTAIN ESSENTIAL SERVICES ONLY & LAND ASAP

EMERGENCIES Continued

ENGINE FAILURE AFTER TAKE OFF	E.F.T.O.
ATTITUDE / CONFIGURATION	Lower nose for best glide speed
	Select landing area ahead
FUEL	Off
MAGNETOS	Off
RADIO	MADAY Call to ATC if time permits
MASTER SWITCH	Off after final flap selection

BRIEF PASSENGERS TIGHTEN HARNESSES, OPEN DOORS NEVER ATTEMPT TO TURN BACK TO AIRFIELD

ENGINE FAILURE AT ALTITUDE	
ATTITUDE / CONFIGURATION	Configure for best glide speed & trim
PLAN	Forced landing site & check possible cause of engine failure
CARBURETTOR HEAT	On hot (not available if engine has failed)
FUEL	On, check contents
MIXTURE	Rich
PRIMER	Locked (Not modelled)
MAGNETOS	On both
THROTTLE	If engine fails to respond – exercise
RADIO	MADAY Call - R.I.P.L.H.
TRANSPONDER	Set to 7700
FUEL	Off
MAGNETOS	Off
HARNESSES	Tighten
DOORS	Open
CREW / PASSENGERS	Briefed as time permits
MASTER SWITCH	Off after final flap selection

DITCHING PROCEDURE	

AS PER PREVIOUS ENGINE FAILURE. HEAD FOR COASTLINE OR SHIPPING

LARGE SWELL / LIGHT WIND	Land along swell, tail down, stalled
LIGHT SWELL / STRONG WIND	Land into wind, tail down, stalled
AFTER DITCHING	Use survival equipment

DO NOT INFLATE LIFE JACKETS IN CABIN

REFERENCE SPEEDS in Knots as per TA SOP's

Vne	**149**	Never exceed
Vno	**111**	Max structural cruise
Va	**93 @ 1350lbs**	Manoeuvring speed
	98 @ 1500lbs	
	104 @ 1670lbs	
Vfe	**85**	Max flap extend
Vr	**55**	Rotation speed
Vx	**55**	Best angle climb
Vy	**67**	Best rate of climb
	70 - 80	Cruise climb
Vs1	**40**	Stall speed
Vso	**35**	Stall landing configuration
Vg	**60**	Best glide speed
Vapp	**55 - 65**	Approach speed
Vref	**60**	Touch down Speed
	55	Short field touch down speed
	12	Max Demonstrated crosswind component