Cessna 152
Quick Reference Checklist

For simulation use only, not for real world flight

PREFLIGHT

Ignition Switch ..... OFF
Master Switch ..... ON

WARNING: When turning on the master switch, using an external power source, or pulling the propeller through by hand, treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand within the arc of the propeller, since a loose or broken wire, or a component malfunction, could cause the propeller to rotate.

Fuel Quantity Indications ..... CHECK QUANTITY
Master Switch ..... OFF
Fuel Shutoff Valve ..... ON
Empennage Control Surfaces ..... CHECK freedom of movement and security
Ailerons ..... CHECK freedom of movement and security

BEFORE STARTING ENGINE

Preflight Inspection ..... COMPLETE
Fuel Shutoff Valve ..... ON
Radios, Electrical Equipment ..... OFF
Brakes ..... TEST and SET
Circuit Breakers ..... CHECK IN

STARTING ENGINE

Mixture ..... RICH
Carburetor Heat ..... COLD
Master Switch ..... ON
Prime ..... AS REQUIRED (up to 3 strokes - none if engine is warm)
Throttle ..... OPEN 1/2 INCH (CLOSED if engine is warm)
Propeller Area ..... CLEAR
Master Switch ..... ON
Ignition Switch ..... START
Throttle ADJUST for 1000 RPM or less Oil Pressure CHECK Flashing Beacon and Navigation Lights ..... ON as required
Radios ..... ON

BEFORE TAKEOFF

Parking Brake ..... SET
Flight Controls ..... FREE and CORRECT
Flight Instruments ..... SET
Fuel Shutoff Valve ..... ON
Mixture ..... RICH (below 3000 feet)
Elevator Trim ..... TAKEOFF
Throttle ..... 1700 RPM
- Magnetos .... CHECK (RPM drop should not exceed 125 RPM on either magneto or 50 RPM differential between magnetos).
- Carburetor Heat ..... CHECK (for RPM drop)
- Engine Instruments and Ammeter ..... CHECK
- Suction Gage ..... CHECK
- Throttle ..... 1000 RPM OR LESS

Radios ..... SET
Strobe Lights ..... AS DESIRED
Brakes ..... Release

NORMAL TAKEOFF

Wing Flaps ..... 0° - 10°
Carburetor Heat ..... COLD
Throttle ..... FULL OPEN
Elevator Control ..... LIFT NOSE WHEEL at 50 KIAS
Climb Speed ..... 65-75 KIAS

SHORT FIELD TAKEOFF

Wing Flaps ..... 10°
Carburetor Heat ..... COLD
Brakes ..... APPLY
Throttle ..... FULL OPEN
Mixture .... RICH (above 3000 feet, LEAN to obtain maximum RPM)
Brakes ..... RELEASE
Elevator Control ..... SLIGHTLY TAIL LOW
Climb Speed ..... 54 KIAS (until all obstacles are cleared) Wing Flaps RETRACT slowly after reaching 60 KIAS

CLIMB

Airspeed ..... 70-8 KIAS
Throttle ..... FULL OPEN
Mixture . RICH below 3000 feet, LEAN for maximum RPM above 3000 feet

CRUISE

Power ..... 1900-2550 RPM (no more than 75%)
Elevator Trim ..... ADJUST
Mixture ..... LEAN

DESCENT

Mixture ..... ADJUST for smooth operation (full rich for idle power)
Power ..... AS DESIRED
Carburetor Heat ..... FULL HEAT AS REQUIRED

PRE-LANDING

Mixture ..... RICH
Carburetor Heat ..... ON (apply full heat before closing throttle)

NORMAL LANDING

Airspeed ..... 60-70 KIAS (flaps UP)
Wing Flaps ..... AS DESIRED (below 85 KIAS)
Airspeed ..... 55-65 KIAS (flaps DOWN)
Touchdown ..... MAIN WHEELS FIRST
Landing Roll ..... LOWER NOSE WHEEL GENTLY
Braking ..... MINIMUM REQUIRED

SHORT FIELD LANDING

Airspeed ..... 60-70 KIAS (flaps UP)
Wing Flaps ..... 30° (below 85 KIAS)
Airspeed ..... MAINTAIN 45 KIAS
Power ... REDUCE to idle as obstacle is cleared Touchdown ... MAIN WHEELS FIRST
Braking ..... APPLY HEAVILY
Wing Flaps ..... RETRACT

BALKED LANDING

Throttle ..... FULL OPEN
Carburetor Heat ..... COLD
Wing Flaps ..... RETRACT to 20°
Airspeed ..... 55 KIAS
Wing Flaps ..... RETRACT (slowly)

AFTER LANDING

Wing Flaps ..... UP
Carburetor Heat ..... COLD

SECURING AIRPLANE

Parking Brake ..... SET
Radios, Electrical Equipment ..... OFF
Mixture ..... IDLE CUT-OFF (pull full out)
Ignition Switch ..... OFF
Master Switch ..... OFF

Emergency Procedures Checklist

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ENGINE FAILURE DURING TAKEOFF RUN

Throttle . . . . . IDLE
Brakes . . . . . APPLY
Wing Flaps . . . . . RETRACT
Mixture . . . . . IDLE CUT-OFF
Ignition Switch . . . . . OFF
Master Switch . . . . . OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed . . . . . 60 KIAS
Mixture . . . . . IDLE CUT-OFF
Ignition Switch . . . . . OFF
Wing Flaps . . . . . AS REQUIRED
Master Switch . . . . . OFF

ENGINE FAILURE DURING FLIGHT

Airspeed . . . . . 60 KIAS
Carburetor Heat . . . . . ON
Primer . . . . . IN and LOCKED
Fuel Shutoff Valve . . . . . ON
Mixture . . . . . RICH
Ignition Switch . . . . . BOTH (or START if propeller is stopped)

EMERGENCY LANDING WITHOUT ENGINE POWER

Airspeed . . . . . 65 KIAS (flaps UP), 60 KIAS (flaps DOWN)
Mixture . . . . . IDLE CUT-OFF
Fuel Shutoff Valve . . . . . OFF
Ignition Switch . . . . . OFF
Wing Flaps . . . . . AS REQUIRED (30° recommended)
Master Switch . . . . . OFF
Touchdown . . . . . SLIGHTLY TAIL LOW
Brakes . . . . . APPLY HEAVILY

PRECAUTIONARY LANDING WITH ENGINE POWER

Airspeed . . . . . 60 KIAS
Wing Flaps . . . . . 20°
Selected Field FLY OVER, noting terrain and obstructions, then retract flaps upon reaching a safe altitude and airspeed
Radio and Electrical Switches . . . . . OFF
Wing Flaps . . . . . 30° (on final approach)
Airspeed . . . . . 55 KIAS
Master Switch . . . . . OFF
Touchdown . . . . . SLIGHTLY TAIL LOW
Ignition Switch . . . . . OFF
Brakes . . . . . APPLY HEAVILY

DITCHING

Radio . . . . . TRANSMIT MAYDAY on 121.5 MHz, giving location and intentions and SQUAWK 7700 if transponder is installed
Heavy Objects (in baggage area) . . . . . SECURE OR JETTISON
Approach . . . . . High Winds, Heavy Seas . . . . . INTO THE WIND
Light Winds, Heavy Swells . . . . . PARALLEL TO SWELLS
Wing Flaps . . . . . 30°
Power . . . . . ESTABLISH 300 FT/MIN DESCENT AT 55 KIAS.
Touchdown . . . . . LEVEL ATTITUDE AT ESTABLISHED RATE OF DESCENT

ENGINE FIRE IN FLIGHT

Mixture . . . . . IDLE CUT-OFF
Fuel Selector Valve . . . . . OFF
Master Switch . . . . . OFF
Cabin Heat and Air . . . . . OFF (except wing root vents)
Airspeed . . 85 KIAS (If fire is not extinguished, increase glide speed to find an airspeed which iwill provide an incombustible mixture)
Forced Landing . . . . . EXECUTE (as described in Emergency Landing Without Engine Power)

FIRE DURING START ON GROUND

Cranking . CONTINUE, to get a start which would suck the flames and accumulated fuel through the carburetor and into the engine

If engine starts:

Power . . . . . 1700 RPM for a minutes
Engine . . . . . SHUTDOWN and inspect for damage

If engine fails to start:

Cranking . . . . . CONTINUE in an effort to obtain a start
Engine . . . . . SECURE
Master Switch . . . . . OFF
Ignition Switch . . . . . OFF
Fuel Selector Valve . . . . . OFF
Fire . . . . . EXTINGUISH using fire extinguisher
Fire Damage . . . . . INSPECT, repair damage or replace damaged components or wiring before conducting another flight

ELECTRICAL FIRE IN FLIGHT

Master Switch . . . . . OFF
All Other Switches (except ignition switch) . . . . . OFF
Vents/Cabin Air/Heat . . . . . CLOSED
Fire Extinguisher . . . . . ACTIVATE (if available)

WARNING: After discharging an extinguisher within a closed cabin, ventilate the cabin.

If fire appears out and electrical power is necessary for continuance of flight:

Master Switch . . . . . ON
Circuit Breakers . . . . . CHECK for faulty circuit, do not reset
Radio Switches . . . . . OFF
Avionics Power Switch . . . . . ON
Radio/Electrical Switches ON one at a time, with delay after each until short circuit is localized
Vents/Cabin Air/Heat . . . . . OPEN when it is ascertained that fire is completely extinguished

CABIN FIRE

Master Switch . . . . . OFF
Vents/Cabin Air/Heat . . . . . CLOSED (to avoid drafts)
Fire Extinguisher . . . . . ACTIVATE (if available)

WARNING: After discharging an extinguisher within a closed cabin, ventilate the cabin.

Land the airplane as soon as possible to inspect for damage

WING FIRE

Navigation Light Switch . . . . . OFF
Strobe Light Switch . . . . . OFF
Pitot Heat Switch . . . . . OFF

NOTE: Perform a sideslip to keep the flames away from the fuel tank and cabin, and land as soon as possible, with flaps retracted

STATIC SOURCE BLOCKAGE

Alternate Static Source Valve . . . . . PULL ON

LANDING WITH A FLAT MAIN TIRE

Wing Flaps . . . . . AS DESIRED
Approach . . . . . NORMAL
Touchdown . . GOOD TIRE FIRST, hold airplane off flat tire as long as possible with aileron control

AMMETER SHOWS EXCESSIVE RATE OF CHARGE

Alternator . . . . . OFF
Alternator Circuit Breaker . . . . . PULL
Nonessential Electrical Equipment . . . . . OFF
Flight . . . . . TERMINATE as soon as practical

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LOW-VOLTAGE LIGHT ILLUMINATES DURING FLIGHT

NOTE: Illumination of the low-voltage light may occur during low RPM conditions with an electrical load on the system such as during a low RPM taxi. Under these conditions, the light will go out at higher RPM. The master switch need not be recycled since an over-voltage condition has not occurred to de-activate the alternator system.

Radios ..... OFF
Alternator Circuit Breaker ..... CHECK IN
Master Switch ..... OFF (both sides)
Master Switch ..... ON
Low-Voltage Light ..... CHECK OFF
Radios ..... ON

If low-voltage light illuminates again:

Alternator ..... OFF
Nonessential Radio and Electrical Equipment ..... OFF
Flight ..... TERMINATE as soon as practical

INADVERTENT ICING ENCOUNTER

Turn pitot heat switch ON.
Turn back or change altitude to obtain an outside air temperature that is less conducive to icing.
Pull cabin heat control full out and open defroster outlet to obtain maximum defroster air temperature. For greater air flow at reduced temperatures, adjust the cabin air control as required.
Open the throttle to increase engine speed and minimize ice buildup on propeller blades.
Watch for signs of carburetor air filter ice and apply carburetor as required. An unexplained loss in engine speed could be caused by carburetor ice or air intake filter ice. Lean the mixture for maximum RPM, if carburetor heat is used continuously.
Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site.
With an ice accumulation of 1/4 inch or more on the wing leading edges, be prepared for significantly higher stall speed.
Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness.
Open left window and, if practical, scrape ice from a portion of the windshield for visibility in the landing approach.
Perform a landing approach using a forward slip, if necessary, for improved visibility.
Approach at 65 to 75 KIAS depending upon the amount of the accumulation.
Perform a landing in level attitude.