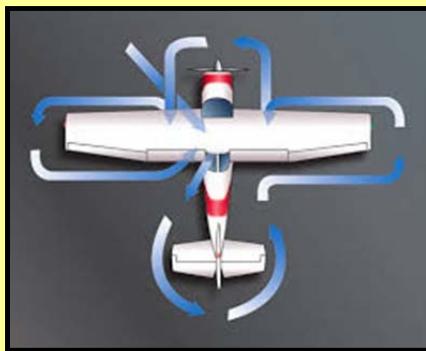




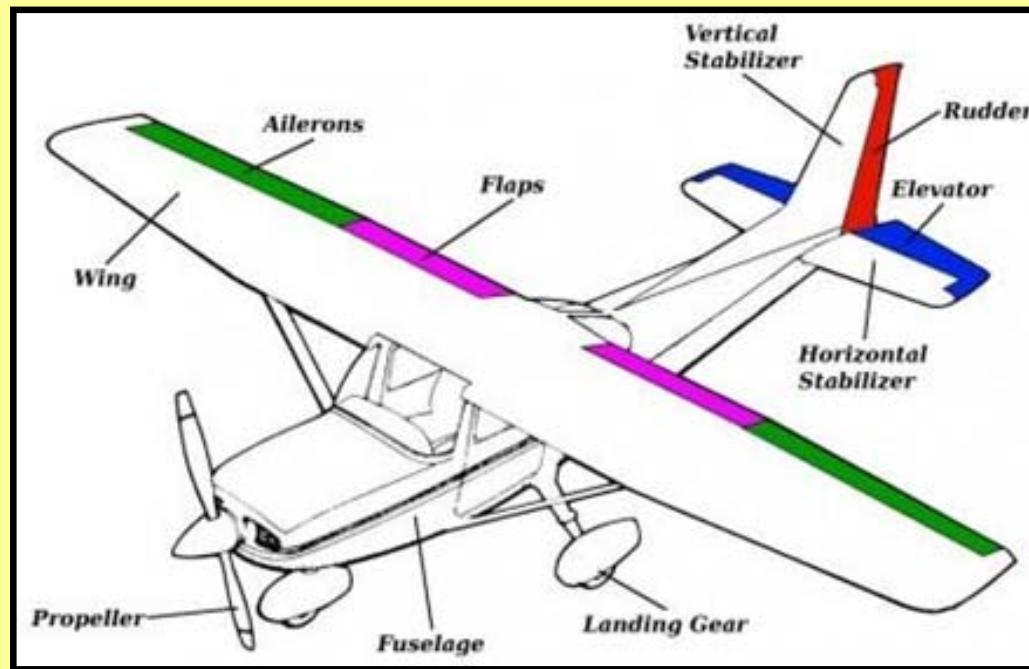
PREFLIGHT INSPECTION



PREFLIGHT INSPECTION



STEP
BY
STEP



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PREFLIGHT INSPECTION



IMPORTANT NOTE!

- Many an aircraft accidents could have been prevented by the pilot completing an adequate preflight inspection of their aircraft before departure.
- The preflight inspection will initially be taught to you by your instructor and after they oversee you conducting it a few times it will become your responsibility to thoroughly check the aircraft before each flight.
- The inspection procedure is laid out in the POH for your aircraft.

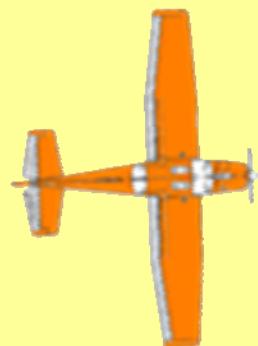
PREFLIGHT INSPECTION



- *After reviewing the aircraft documents and confirming suitable weather for the trip, a thorough pre-flight inspection (or walk-around) is essential to confirm that your aircraft is airworthy.*
- *The following pre-flight inspection is an excerpt from the Cessna 152 Pilot Operating Manual.*



AIRCRAFT PREFLIGHT INSPECTION 3 STEP PROCESS



- Best practise is to do three walkarounds:
- In walkaround one, we put the master on and check the lights; pitot heat; the stall warning vane, oil and fuel. This way if we need to order fuel, it can be done now and will reduce any potential delays.
- In walkaround two, we select the flaps down. After they have been extended we turn the master off.
- In walkaround three, the master is now off thus conserving the battery, and we take our time to do a complete detailed pre-flight inspection of the aircraft as will be discussed in the ensuing pages.

PREFLIGHT INSPECTION



FLUIDS

Fuel Quantity:

- Check the fuel quantity for your aircraft using the dipstick stored behind the seat. Check the journey log or refueling stickers to verify if it has normal or long range tanks.
- You will inform your instructor regarding the fuel quantity in gallons and calculate the aircraft.
- If the fuel quantity is below half tanks order fuel immediately (except aircraft with long range tanks).
- Fuel can be ordered through “Bay Fuel” on frequency 122.95.

PREFLIGHT INSPECTION



FLUIDS

Fuel Quantity:

- Check the fuel quantity for your aircraft using the dipstick stored behind the seat.
- Check the journey log or refueling stickers to verify if it has normal or long range tanks.



VENTED FUEL TANKS

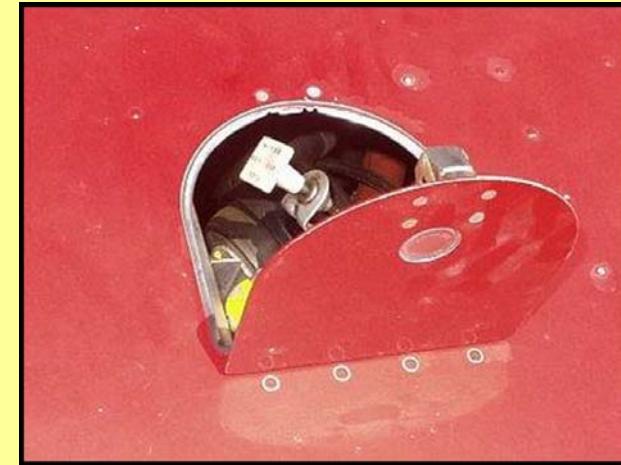
PREFLIGHT INSPECTION



FLUIDS

Fuel Grade and Sediment:

- All of Pro's aircraft run on 100LL fuel. We drain fuel from each of the wing drains abeam the doors as well as the fuel strainer and in the C152 – C172 underneath the fuselage at the fuel selector drain.



PREFLIGHT INSPECTION



FLUIDS

Fuel Grade and Sediment:

The sample should be verified to be a blue colour and there should not be any bubbles of water or floating sediment (dirt, rust, etc.).



PREFLIGHT INSPECTION



FLUIDS

Oil:

Verify the oil quantity is sufficient for the flight. For the C152 it should be 4-6 quarts. For the C172 it should be 5.5-7 quarts. Take care not to over-tighten the oil cap as it can become stuck closed after running the engine due to expansion of the materials.

Note: Record both the fuel and oil quantities in your kneeboard. This will allow you to have a quick reference later for completing the aircraft journey log entry.

PREFLIGHT INSPECTION



INSIDE OF AIRCRAFT:

1. Control Lock Remove

Remove and place in the pocket behind the seat.



2. Ignition Off and Key Out

Place key on dash so it is visible.

3. First Aid Kit

Confirm on board

4. Fire Extinguisher Charger and Secure

Ensure gauge is in the green, latch is secure and pin in place.

5. Seats and Inside of Aircraft

Confirm seat rails are secure, seat is attached to rails, pin is securely catching and seat back and vertical adjustments are appropriate. Confirm interior upholstery is not coming loose and interfering with rudder pedals, etc. Check underneath instrument panel for security of control cables. Visually confirm if any wiring appears cut or damaged. Confirm location of required placards including compass deviation card.

PREFLIGHT INSPECTION



INSIDE OF AIRCRAFT:

6. Master Battery Side On

Provides power to inspect electrical components.

7. Fuel Gauges Confirm Quantity

Confirm gauges indicate quantity that was determined with dipstick.

8. Flaps Down in Stages

Extend 10 degrees at a time verify smooth and equal extension. Also confirm indicator matches flap position.

9. All Interior and Exterior Lights

Turn on and check nav lights, strobe lights (if installed), beacon light, landing and taxi lights, pitot heat, radio light, instrument panel flood light and dome light.

10. Master Off

Don't waste battery power!

11. Trim Check Full Travel

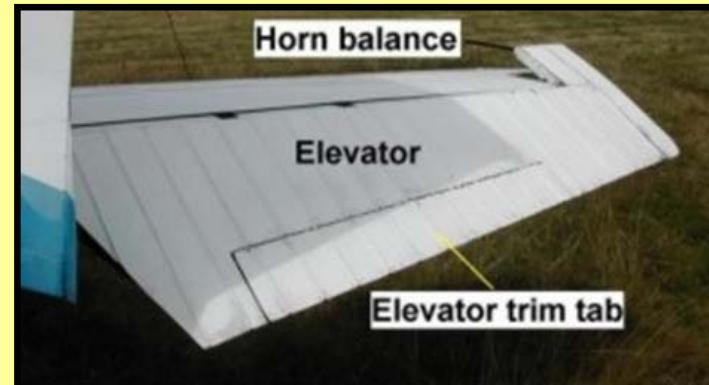
While holding the control column full aft, confirm proper movement of the elevator trim tab. Verify that the indicator matches the actual deflection and that the takeoff position has the trim tab flush with the elevator.

PREFLIGHT INSPECTION



EMPENNAGE:

- 1. Baggage Door (C172)**
Locked
- 2. Aft Section of Fuselage**
Check aircraft skin for
dents, damage,
missing or popped
rivets.
- 3. Horizontal Stabilizer**
Verify security and
condition.



PREFLIGHT INSPECTION



EMPENNAGE:

4. Elevator

Check for full range of movement, cross-check with control column movement. Check elevator stops (flat bolts that limit elevator movement) to ensure they are properly limiting movement. Check elevator cables for tension. Check all bolts for security and at least 1 ½ threads visible beyond the nut.

5. Rudder and Vertical Stabilizer

Check for security, dents, popped rivets. Verify all three bolts of rudder are secure and have threads showing. Check rudder cables for tension and verify rudder stops are in place and working.

6. Trim Tab

- Check security of hinge and push rod.
- VOR antenna, Beacon and Aft Nav light.

PREFLIGHT INSPECTION



RIGHT WING:

1. Flaps

Check for movement, they should have some side to side and vertical movement. If not this could indicate stuck rollers. Check tracks for cracks or damage. Verify push rod is secure and twist to verify freedom of movement.



2. Aileron

Check for security and condition. Verify screws, nuts and hinges are secure. Check and twist push rod for security and movement. Verify alternate movement from left aileron and control column movement.



PREFLIGHT INSPECTION



RIGHT WING:

3. Wing tip

Check lights for security and damage.

4. Leading edge and upper surface

Check for dents or damage. Verify fuel cap is secure. Verify no ice, snow, slush or frost on wing or other lifting surfaces.

5. Landing Gear

Check for adequate tire pressure, check treads and roll tire to verify underside and bearing condition. Check valve at 45 degrees and pin in place. Check brake disk for damage and brake pads for excess wear. Check brake line, gear strut and ground for indications of leaking hydraulic fluid.

PREFLIGHT INSPECTION



FRONT OF AIRCRAFT:

1. Engine Cowling

Verify screws secure.

2. Avionics Cooling Vents

Unobstructed.

3. Exhaust

Secure and undamaged
(could be very hot: do not touch!)



PREFLIGHT INSPECTION



FRONT OF AIRCRAFT:

4. Nose Gear

- Verify security of shimmy-dampener, steering rods and all bolts. Check oleo for adequate suspension (three finger widths of oleo showing).
- Check tire for pressure and roll to confirm treads around entire tire. Check valve at 90 degrees. Confirm dust covers securely attached.



PREFLIGHT INSPECTION



FRONT OF AIRCRAFT:

5. Propeller

Run hands around prop to check for nicks or cracks.
Check spinner for security.



6. Alternator

Confirm belt is secure and check for formation of cracks in belt.

PREFLIGHT INSPECTION



LEFT WING:

As per Right Wing except:

1. Pitot Tube

Remove cover and check
unobstructed.



2. Fuel Vent

Check Unobstructed



3. Stall Warning Vane

Check unobstructed.

PREFLIGHT INSPECTION



ADDITIONAL ITEMS:



NOSEWHEEL
ASSEMBLY AND
SHIMMY DAMPENER



RUDDER CABLE
CONNECTIONS AND
TAIL TIE DOWN



MAINWHEEL
ASSEMBLY, TIRE,
AND BRAKE PADS

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COCKPIT CHECK AMPLIFIED



- As a pilot your cockpit is your office and as such you have to make sure you have it organized and configured prior to flight.
- Once airborne things will happen quickly so be prepared!
- We carry out our cockpit check from top to bottom. This is a “flow check” and they are routinely used by airline pilots to configure their cockpit for flight.



TOP TO BOTTOM

COCKPIT CHECK AMPLIFIED



1. Wing Root Vents

Set as required. You don't want to be distracted by a blast of cold air right after take-off.

2. Panel

Plastic covering secure.

3. Dash

All loose objects removed and secured. Your dash is not a desk for loose papers, pens and your flight computer.

4. Compass Deviation card

On board and dated within previous 12 months.

5. Instruments

Set as required. Set altimeter to current altimeter setting.
Set heading indicator off magnetic compass.

COCKPIT CHECK AMPLIFIED



6. Radios

Ensure you are familiar with the avionics package in the current aircraft. Every aircraft is slightly different does the aircraft have 1 or 2 radios? Is the squelch and volume for the intercom set? Are we in “PILOT ISO” or “CREW MODE”? Is the output of the receiver the speaker or our headsets?

7. Lights

All off except beacon for day flights. Confirm instrument flood lighting is “OFF” for day operations.



COCKPIT CHECK AMPLIFIED



8. Emergency checklist

Confirm onboard and accessible.

9. Kneeboard

Pens and Pencils available,
Navigation Log attached, etc.

10. Charts/CFS

On board, folded and ready.

11. Seats and Seatbelts

Secure.

12. Floor

Confirm no loose objects that could
slide under rudder pedals.

Emergency	
Engine Fire During Startup	
Starter	engage
Mixture	cut-off
Throttle	full open
Fuel Selector	off
Fire Extinguisher	under seat
Engine Fire In Flight	
Fuel Selector	off
Throttle	closed
Mixture	cut-off
Cabin Heater	off
V_{FE}	100 mph
Emergency Descent or V_{BG}	decide
Flaps	40°
Emergency Descent at V_{FE}	100 mph
Electrical Fire (Smoke in Cabin)	
Master Switch	off
Cabin Heater	off
Vents and Window	open
Alternator Failure	
Electrical Load	minimum
Ampère Meter	check
Land as soon as practical	

EXAMPLE ONLY

CHECKLIST AMPLIFIED



NOW LET'S TALK ABOUT HOW TO RUN THE CHECKLIST:

- After the pre-flight inspection is complete, it is into the airplane and we commence to go through the items on the checklist.
- As a pilot your checklist is a step-by-step guide to getting your aircraft started and getting safely airborne and back again. Don't overlook its importance and exercise proper discipline using it.
- Make sure to read each item out loud while using your thumb to mark your current location so as not to overlook any items (missed items could have very serious consequences). This will set a professional cockpit atmosphere and show that you are a confident and knowledgeable pilot.
- Below is an expanded version of the checklist that explains what it is we do in the aircraft and why...

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CHECKLIST AMPLIFIED



PASSENGER BRIEFING

1. If the aircraft is equipped with survival gear, point out its location...

1. SURVIVAL GEAR – LOCATION

2. FIRST AID KIT – USE

2. The aircraft will definitely be equipped with a First Aid Kit. Point out its location...

CHECKLIST AMPLIFIED



3. The aircraft will also be equipped with an ELT. Briefly mention its purpose and the fact that it will trigger in the event of a mishap. Demonstrate how to activate it in the event that I am unable and the importance of leaving it on...

3. ELT LOCATION AND FUNCTION

4. FIRE EXTINGUISHER & LOCATION

4. Point out the location of the fire extinguisher and the fact that it is only to be used as directed by the Pilot in Command. Show how to release it from its mounting bracket...

CHECKLIST AMPLIFIED



- 5. Mention that smoking is not permitted**
5. SMOKING NOT PERMITTED
- 6. Demonstrate how to open, close, and lock doors. Mention that these doors also serve as the emergency exits...**
6. DOORS & EXITS – OPERATION
- 7. Demonstrate how to fasten and unfasten as well as how to tighten securely. If equipped with a shoulder harness, demonstrate its use and importance...**
7. SEAT BELTS – OPERATION

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CHECKLIST AMPLIFIED



8. *In the interest of safety, ask your passengers to refrain from touching the controls (including rudder pedals).*

8. FLIGHT CONTROLS – DO NOT TOUCH

9. NO TALKING PLEASE

9. *Explain that you will be busy communicating with ATC at certain times during the flight. In cruise you will be able to answer questions and communicate. This does not preclude pointing out any potential emergencies...*

CHECKLIST AMPLIFIED



START CHECK

The baggage must be stowed and secured in the proper baggage compartments and any loose articles that may potentially fly around the cockpit in turbulence must be stowed (for obvious reasons)...

1. COCKPIT CHECK

2. CONTROLS FREE & CORRECT

*Full travel on rudders, elevators, and ailerons.
Confirm correct rigging...*

CHECKLIST AMPLIFIED



START CHECK

Confirm indicator shows take-off setting. Also visually confirm trim tab is flush with the rest of the elevator.

3. TRIM – CHECK AND SET
4. FUEL ON LEFT TANK (C-152 – ON)

In the C-172's we will start on the left tank, move the fuel to the right tank later in the checklist and to the run-up and takeoff on the mains. In the C-152's we do not have the choice of left and right tanks, the fuel is either on or off – simple...

CHECKLIST AMPLIFIED



START CHECK

With the mixture in “idle cut-off”, fuel is not permitted into the engine. We obviously need fuel, therefore, mixture rich...

5. MIXTURE – RICH

6. CARB HEAT - COLD



If carb heat is left on, the air to the engine by-passes the filter. Unfiltered air is not ideal for ground operations, therefore, carb heat cold...

CHECKLIST AMPLIFIED



START CHECK

With the throttle open to approximately 1 centimetre, it should produce approximately 1000 RPM at engine start. This is our target RPM setting at start. It is important not to idle at too high an RPM setting until the engine is warm...

7. THROTTLE SET - 1 CENTIMETRE



CHECKLIST AMPLIFIED



START CHECK

Feet will be firmly on brakes for your engine start (even if the park brake is on). You don't want any surprise forward lurching when the engine is started...

8. BRAKES – TEST AND SET

9. PRIMER AS REQUIRED

Especially on the first start of the day when the engine is cold, the engine will start much easier if we deposit some fuel directly into the cylinders to improve chance of ignition at the engine start. We normally give 2 squirts (3 on cold days).

CHECKLIST AMPLIFIED



START CHECK

By putting the master switch “on”, the electrical system of the aircraft is now being serviced by the battery. We don’t want to wait too long before we start the engine as we do not want to drain the battery (especially in cold weather).

10. MASTER (BATTERY SIDE) ON

11. BEACON ON

By putting the rotating beacon on, this is a signal to other people and aircraft that an engine start is imminent. Beware...

At night the nav lights will also be used prior to start.

CHECKLIST AMPLIFIED



START CHECK

The pilot now has a good look around in all quadrants to confirm no hazards and then calls “CLEAR!”, as further notice to others that you are about to start the engine...



12. PROP AREA & BEHIND AIRCRAFT CLEAR

13. MAGNETOS ON AND “START”

The pilot then turns the key to start... With engine start I like to see 2 instantaneous checks:

-Oil pressure within 10 seconds

-RPM not greater than 1000 RPM. Any higher and the engine will be stressed by the sudden addition of heat and subsequent thermal expansion.

CHECKLIST AMPLIFIED



START CHECK

Second oil pressure confirmation...



14. OIL PRESSURE – WITHIN 10 SECONDS

15. ALTERNATOR ON – CHECK CHARGING
- ANNUNCIATOR LIGHT OUT

By selecting the alternator “on” the electrical system should now be serviced by the alternator and the battery should be charging. This is evidenced by a “positive charge” on the ammeter gauge...

CHECKLIST AMPLIFIED



START CHECK

We set 1000 rpm to warm the engine temperatures up (to bring them into the “green” for the run-up) At this RPM setting, we are not loading the engine too much when the engine is cool...

16. THROTTLE – 1000 RPM



***It's important to know
what you are checking
and the reason why!***

Next checklist please...



CHECKLIST AMPLIFIED



PRE-TAXI & TAXI CHECK

By leaning the mixture about 1 inch (3cm), we will help prevent “lead fouling” on the spark plugs. Fouled plugs sometimes appear to be a bad magneto on the mag check later on the run-up...

1. LEAN AS REQUIRED



2. FLAPS CHECK & RETRACT

Now that the engine is running and the alternator is on, we select flaps up in stages. Flaps were extended for the pre-flight check. At each setting visually confirm both flap positions and cross-check with the indicator in the cockpit.

CHECKLIST AMPLIFIED



PRE-TAXI & TAXI CHECK

Both-L-R-Both

Just a quick confirmation that you have two serviceable magnetos. This is checked in more detail in the run-up but if an unserviceability is noted here, you'd terminate the flight and save a lot of time...

3. DEAD MAG CHECK

4. FUEL ON RIGHT TANK (C-172)

In the Cessna 172 this is the time to change our fuel selector to the right tank. This way we can find out if the engine can draw fuel out of either tank...



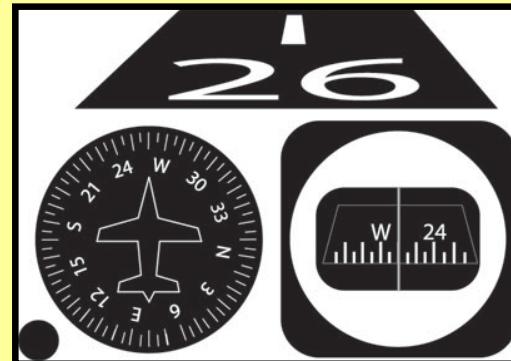
CHECKLIST AMPLIFIED



PRE-TAXI & TAXI CHECK

Set the Heading Indicator to correspond with the heading as is indicated on the Magnetic Compass...

5. SET HEADING INDICATOR



6. AVIONICS & ELECTRICS AS REQUIRED

Turn your communication & navigation radios on plus (if flying at night or dusk), navigation lights and landing lights prior to taxiing...

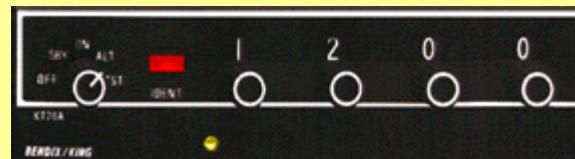
CHECKLIST AMPLIFIED



PRE-TAXI & TAXI CHECK

The transponder, (in essence a radio which replies to radar interrogation) should be selected to standby for warm-up. It will not reply to radar interrogation on standby mode...

7. TRANSPONDER STANDBY



8. COPY "ATIS"

You will now receive important information via the Automatic Terminal Information Service to find local weather, altimeter setting and other pertinent information. See communications later in the manual.

CHECKLIST AMPLIFIED



PRE-TAXI & TAXI CHECK

Now we will call Ground Control to receive taxi clearance to the run-up area. More on this in the Communications Section...

9. TAXI CLEARANCE



10. BRAKES CHECK

Inch forward and at a slow speed with power idle, check the brakes with the control column held full aft. Both pilots should check their own brakes independently if applicable...

CHECKLIST AMPLIFIED



PRE-TAXI & TAXI CHECK

In a right turn everything increases, in a left turn, everything decreases...

It is obviously important to know if your instruments are serviceable. You've got to find this out prior to flight. This check is discussed in detail later in the manual...

11. TAXI INSTRUMENT CHECK (TURNS)
12. CORRECT CONTROL INPUTS INTO WIND IN TAXI

In strong wind conditions the controls must be held into the wind in an effort to stabilize the aircraft when operating on the ground. Covered in the Taxi Section.

CHECKLIST AMPLIFIED



RUNUP CHECK

If the nosewheel isn't straight you will cause a side load on the tire and in the event that the brakes ever failed during the run-up, you will not go straight and could tip the aircraft over. We do the run-up into wind to enhance engine cooling and aircraft stability...



1. AIRCRAFT INTO WIND – NOSEWHEEL STRAIGHT
2. CHECK CLEAR BEHIND AIRCRAFT

As considerable power will be developed in the run-up and rocks or foreign matter can easily be thrown, make sure your area is clear...

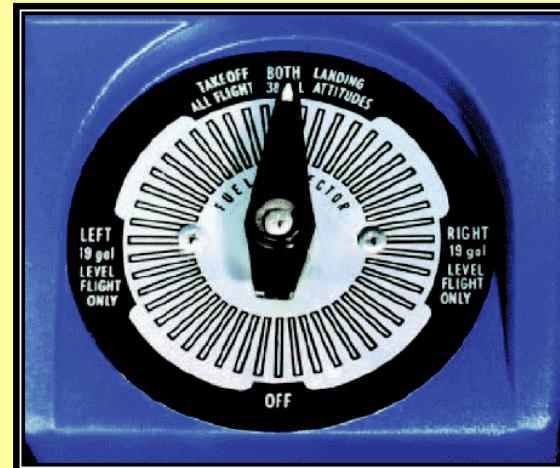
CHECKLIST AMPLIFIED



RUNUP CHECK

For obvious reasons, the brakes must be held. Do not rely on the parking brake...

3. BRAKES ON
4. FUEL ON BOTH TANKS



It is an absolute must that the takeoff be accomplished on the tank that we did the run-up on. We takeoff with the fuel selectors on "both" in the C-172 for redundancy...

CHECKLIST AMPLIFIED



RUNUP CHECK

A rich mixture aids in engine cooling. At some airports (Calgary, 3550 ASL) you might have to run-up and takeoff with a leaner mixture to attain maximum RPM...

- 5. MIXTURE FULL RICH
- 6. THROTTLE 1700 RPM



1700 RPM is chosen because this represents 75% of power available on the ground. This is approximately the same percentage of power used in flight...

CHECKLIST AMPLIFIED



RUNUP CHECK

Oil temp and pressure should still be within limits (in the green). Be sure the oil temp is at least close to limits before you run-up, never run-up a cold engine!

7. OIL PRESSURE GREEN & TEMPS NORMAL
8. AMMETER CHECK

The ammeter should be sitting to the right side of centre, showing that the alternator is serviceable and charging the battery...



CHECKLIST AMPLIFIED



RUNUP CHECK

It is important to know that the vacuum pump (which supplies air pressure to drive the gyros in the heading indicator and attitude indicator) is serviceable. Normal limits are approximately 4.6-5.4" of mercury...

9. SUCTION CHECK

10. CARB HEAT ON - CHECK RPM DROP - THEN OFF

In the carb heat check we should lose about 100 RPM due to the less dense air entering the carburetor. We then watch for a later increase which would indicate the presence of ice. When the carb heat is returned to the off position, the RPM should return to the initial value of 1700 RPM.

CHECKLIST AMPLIFIED



RUNUP CHECK

To confirm the mixture control is serviceable on the run-up, carefully lean the mixture control out and you may get a slight increase in RPM followed by a decrease as the engine is becoming fuel starved. With the check complete, go back to full rich...

11. MIXTURE – CHECK LEAN FUNCTION

12. MAGNETOS CHECK – MAX DROP 125 RPM – MAX DIFFERENTIAL 50 RPM

For increased safety, each cylinder has 2 spark plugs which fire independently (dual ignition). Each magneto fires one plug so that if one magneto fails in flight you still will have one spark plug firing and igniting the fuel in the cylinder. You want to be certain that both spark plugs are firing (mags on both) and also check them independently (mags left and right).

Sometimes you may encounter a rough running mag and this is often caused by lead deposits on the spark plug. Your instructor will show you how to burn this off. If the excessive mag drop persists, get it checked. Maximum allowable drop is 125 RPM with a 50 RPM differential...

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CHECKLIST AMPLIFIED



RUNUP CHECK

We want to be certain that the aircraft is able to fully idle with the carb heat on. We wouldn't want the engine to quit on short final and this check confirms that the engine will continue to operate in those conditions...

13. CARB HEAT ON – FULL IDLE
14. CHECK OIL PRESSURE – AMMETER

One last check of engine and electrical system gauges at full idle...



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CHECKLIST AMPLIFIED



RUNUP CHECK

Now back to normal idle. If we idle too low, the alternator may go off line and you don't want to cool the engine by idling too low...

15. THROTTLE 1000 RPM – CARB HEAT COLD
16. CIRCUIT BREAKERS - IN

Confirm that no circuit breakers have tripped after doing the run-up...



RUNUP COMPLETE

CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

As previously discussed, by now we must be belted in with the seats at their proper extension. This check is one last confirmation that this has been accomplished...

1. HARNESS & SEATS SECURE
2. BAGGAGE & DOORS SECURE

One last confirmation that the baggage is secure and the doors now are locked. As Pilot-in-Command you are responsible for all doors...



CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

***This is the last confirmation that the controls are free.
Ensure your instructor's knees aren't in the way!***

3. CONTROLS FREE
4. TRIM SET

***Confirm that the elevator trim is in
the takeoff position...***



CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

*Flaps may be required, depending upon the type of takeoff chosen.
Review your takeoff procedures if other than a normal takeoff...*

5. FLAPS AS REQUIRED
6. FUEL ON BOTH AND SUFFICIENT

ALWAYS takeoff on the tank that you did the run-up on as you know you have good fuel supply. You'd never do the run-up on one tank and at this time change tanks for takeoff...



CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

We used primer to assist our engine start and hopefully locked it once finished. We now confirm that it is locked, as we do not want to create a vacuum and draw fuel out of the cylinders...

7. PRIMER LOCKED
8. MASTER SWITCH ON

Again a simple confirmation that the Master is on...



CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

*Just a final confirmation that the magnetos
are on “Both” after our Magneto check...*

9. MAGS ON BOTH
10. CARB HEAT COLD



Another confirmation that the Carb. Heat is selected cold. If the takeoff was attempted with the Carb Heat hot you would not develop full power thereby increasing our runway requirement.

CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

Airspeed Indicator – zero, MPH or KTS?

Attitude Indicator – on horizon line

Altimeter – set and reading aerodrome alt.

Turn Coordinator – wings level, ball centred

Heading Indicator – set to Magnetic Compass

VSI - zero



11. LEFT TO RIGHT FLIGHT INSTRUMENT CHECK

12. AVIONICS AS REQUIRED

Confirm COM and NAV frequencies and GPS are set for your desired action. Everything that can be set on the ground SHOULD be set in advance on the ground!

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CHECKLIST AMPLIFIED



PRE-TAKEOFF CHECK

Confirm communication (Com) radios and navigation (Nav) radios are set for your desired flight. Confirm audio panel is selected correctly...



CLEARED FOR TAKEOFF!

13. REQUEST CLEARANCE ON TOWER

CHECKLIST AMPLIFIED



RUNWAY CHECKS

- Start doing these checks as soon as you are “off the brakes” and moving onto the runway. Again, you do not want to rush unnecessarily but going too slow also presents a safety hazard.
- Boundary Bay is an especially busy airport and it is very likely that some other aircraft is on short final.
- Do not drag these checks out too long, you’ll give the Tower Controller fits. Again, as always, common sense rules!



**CLEARED FOR TAKEOFF!
RUNWAY CHECKS NOW!**

CHECKLIST AMPLIFIED



RUNWAY CHECKS

Time up and down must be recorded for the Journey Log...

Take a visual check down the runway. Keep your eyes open!

Turn the Transponder to “altitude mode” once moving onto active runway. This way ATC’s radar will be monitoring your progress laterally and vertically and potentially give you flight following and traffic point outs...

1. TIME OFF – RUNWAY CLEAR
2. LANDING LIGHT - AS REQUIRED
3. TRANSPONDER ON “ALTITUDE”
4. CONFIRM CORRECT RUNWAY HEADING ON HEADING INDICATOR
5. CHECK RPM FULL POWER

Confirm that the engine is developing its expected horsepower...

Due to a high number of birds as well as other aircraft we recommend that you takeoff and land with the landing light on at all times. It helps with the “see and be seen” concept...

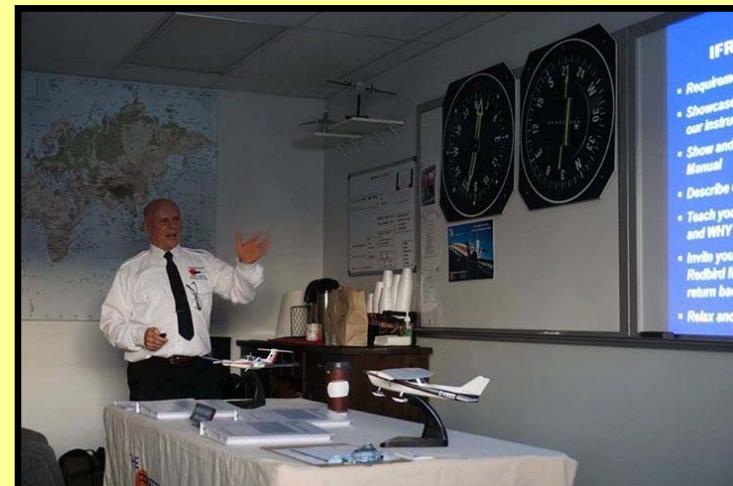
Once lined up, confirm the Heading Indicator to the exact runway heading of the departure runway. If not, re-set to this heading...

CHECKLIST AMPLIFIED



FINAL WORDS ON THE CHECKLIST

- The previous pages really give you what you need to know and should give you the big picture of what you are checking and the reasons why.
- On your flight test the examiner may ask you: “What is the relevance of a check, and what action you would take if the check was not satisfactory?”
- The big point to remember is that it is very important to follow the checklist completely and professionally. You do not want to go too fast but you also do not want to drag it out unnecessarily.



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CHECKLIST AMPLIFIED



DO THIS!

- It is a good idea to sit in the airplane (with the battery master off...) and review the checklist.
- Review each item with this manual, this way you will know what you are checking and the reason why.
- This small investment in time will derive great benefits.



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STANDARD OPERATING PROCEDURES - SOP'S



- Standard Operating Procedures are the backbone of a professional cockpit. They enhance safety by helping you to anticipate thus increasing situational awareness. In other words, they keep you sharp!
- These are the ones that are applicable at this stage of your training but understandably you will be exposed to more as you move into the IFR world and Multi-Crew environments. But at this stage of your training this is a great place to start!

STANDARD OPERATING PROCEDURES - SOP'S



SITUATION

Emergency Briefing (Example):



STANDARD CALL

“Any problem effecting safety before or after V_r with runway remaining the call will be “REJECT!”.

I will stop the aircraft on the runway, by closing the throttle, and applying max braking. Engine failure after V_r with insufficient runway we will land straight ahead until 800'. After 800' initiate a turn back to runway for landing.”

STANDARD OPERATING PROCEDURES - SOP'S



SITUATION

**On takeoff roll with
airspeed alive:**

**Airspeed Indicator at
Rotation Speed (Vr):**

Flap retraction:

**100 feet before reaching
assigned altitude:**

Flap extension:

STANDARD CALL

“Airspeed alive”

“Rotate”

“Flaps up”

“100 above”, “100 below” (as applicable)

“Flaps _____ degrees and indicating