



Aircraft Maintenance Operational and Functional Checks

The following are reminders for aircraft maintenance engineers (AME) prior to performing aircraft operational or functional checks. These do not, and are not meant to, replace a TC/FAA-approved aircraft flight manual, or the aircraft's pilot operating handbook (POH) operation checklist. Prepared by System Safety, Atlantic Region.

Before the task:

1. Confirm inspection sheets/package are completed and appropriately signed off.
2. Check records/worksheets for any special attention required during aircraft operation.
3. Confirm personnel are trained, current and appropriately endorsed on type.
4. Be familiar with airport operator's policies, procedures/practices, aprons, signage, runways, and designated ground-run areas.
5. Take along a copy of the aerodrome diagram for reference [from Canada Airport Charts on the NAV CANADA Web site, or from the *Canada Air Pilot* (CAP)].
11. Be familiar with the aircraft communication equipment, frequencies, and radio licence requirements.
12. Always carry a reliable flashlight when doing functional checks at night.
13. Be familiar with the aircraft emergency procedure checklist.

During operation and taxiing:

1. Always maintain communication with ground or apron controller, and report intentions before moving.
2. Position aircraft into the wind for optimized engine cooling.
3. Consistently monitor engine parameters from left to right and top to bottom for irregularities.
4. Always remain within the aircraft operating limitations.
5. Maintain professionalism in the cockpit.
6. Do not RUSH!
7. Keep taxi speeds to a minimum.
8. While taxiing, keep hands and feet on controls at all times.
9. Be prepared to shut down the engines.

Before start:

1. Always refer to the aircraft's POH operation checklist. Never rely on memory.
2. Conduct a walk around of the aircraft and area for foreign object damage (FOD), loose items, control locks, inlet plugs, covers, chocks, tow-bars and tie downs.
3. Check for personnel or parked aircraft nearby. Reposition the aircraft to prevent damage or injuries.
4. Verify that the nose gear torque links attachment is secure.
5. Verify all the aircraft fluid levels. Take fuel samples, as appropriate.
6. Ensure all panels and engine cowlings are in place and secured, as required for engine operation.
7. Check that all breakers and fuses are set.
8. Place a fire extinguisher nearby, and have trained personnel on visual watch, as required.
9. Be familiar with the location of on-board fire extinguishers.
10. Verify brake operation.

Secure the aircraft:

1. Again, refer to the aircraft's POH operation checklist. Never rely on memory.
2. Follow the recommended engine cool down period.
3. Ensure all switches are turned off, and breakers are checked.
4. Visually check fluid levels and surrounding areas for fluid leaks.
5. Properly secure the aircraft.