
Preflight Inspection

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Checklist Usage

Tasks are executed in one of two ways:

- as a sequence that uses the layout of the cockpit controls and indicators as cues (i.e., "flow pattern")
- as a sequence of tasks organized by event rather than panel location (e.g., After Takeoff; Landing Gear – UP, Flaps – UP).

Placing items in a flow pattern or series provides organization and serves as a memory aid.

A challenge-response review of the checklist follows execution of the tasks; the pilot not flying (PNF) calls the item, and the appropriate pilot responds by verifying its condition (e.g., "Cowl Anti-Ice" [challenge] – "ON" [response]).

Two elements are inherent in the execution of normal procedures:

- use of either the cockpit layout or event cues to prompt the correct switch and/or control positions
- use of normal checklists as "done" lists.

General

Carry out a normal preflight inspection. During inspection, make a general check for security, condition, and cleanliness of the airplane and components. Check particularly for damage, condition of tires, flight controls, fuel, oil, hydraulic fluid leakage, security of access panels, and blockage of ventilation inlets and drain ports. Ensure all ground safety pins, control locks, covers, tie-downs, and chocks are removed and stowed.

Before starting the exterior inspection, obtain the following:

- flashlight
- standard screwdriver
- step stool
- sump drain wrench
- container for fuel drain disposal.

All Surfaces FREE FROM SNOW/ICE/FROST

Protective Covers/Plugs REMOVE/STOW

Remove safety covers from the engines, static ports, pitot probes.

All Intakes/Exhausts. CLEAR

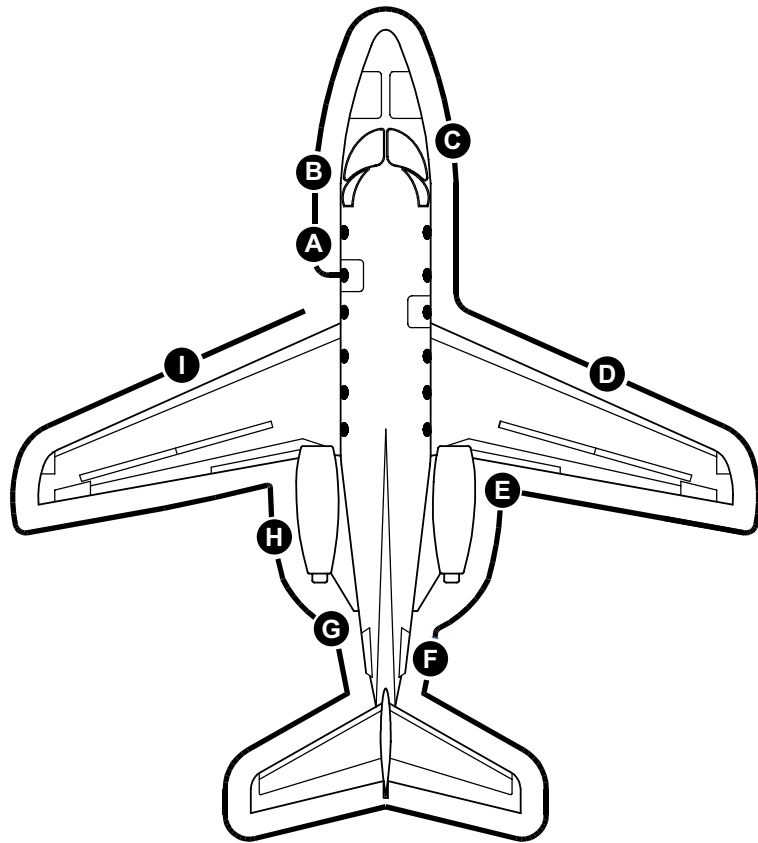
Fasteners/Panels. ALL SECURE

Verify that all fasteners and panels are secure. Remove keys from locks.

General Condition UNDAMAGED

NOTE: If night flight anticipated, check actual operation of all lights.

Preflight Inspection Walkaround Path



B4CRH-PF001i

Cockpit Inspection

Manuals/Documents ABOARD

Ensure the following documents are on board and properly displayed, if required:

- Airplane Flight Manual
- Crew Manuals
- Weight and Balance Manual
- Airworthiness Certificate
- registration certificate
- radio license (for international flight only)

Parking Brake SET OR WHEELS CHOCKED

Control Lock REMOVE AND STOW

Remove and stow the control lock.

Gear Handle DOWN

Ensure that the gear handle is in the down position.

Thrust Levers CUTOFF

Ensure that both thrust levers are in the fuel cutoff position.

Engine Start Select Switch OFF

Oxygen/Nitrogen Pressure CHECK

Oxygen PULL ON

Ensure the oxygen gage reads 1,850 PSIG. If the indication is low, recharge the system to 1,850 PSIG. Ensure the nitrogen gage reads between 1,350 to 1,600 PSIG. If the indication is low, recharge the system to 1,600 PSIG.

NOTE: On aircraft RK-1 thru RK-99, ensure the nitrogen gage reads between 1,350 and 1,500 PSIG. If the indication is low, recharge the system to 1,500 PSIG.

Preflight Inspection

Microphones and Headsets ABOARD

Ensure that the microphone and head phone are on board and in good working condition.

Flashlight ABOARD

Check that the flashlight operates correctly and then stow appropriately.

Fire Extinguishers SERVICED

Verify the portable fire extinguishers are charged and stowed.

Smoke Goggles ABOARD

Check the condition of the smoke goggles and ensure they are properly stowed.

Oxygen Masks CHECK

Check the condition and fit of the oxygen masks. Ensure they are correctly stowed.

Cockpit Windows CONDITION

Battery ON

Turn the battery ON and ensure that the voltage is a minimum of 22 volts.

Fire Extinguisher Switches CHECK

Ensure the fire extinguisher switches are off and the indicators are clear.

Landing Gear Indication CHECK

The three green gear down-and-locked annunciators should be illuminated.

Fuel Quantity and Balance CHECK

Trims SET

Set all trims as required.

CAE SimuFlite

Circuit Breakers CHECK

Ensure all circuit breakers are set as required for takeoff.

Entry Door/Lights CHECK

Close the entry door and verify the door latches are secure.
Check that the door warning light in the cockpit is extinguished.

Battery OFF

Cabin Inspection

Pins, Plugs, and CoversSTOW

Ensure the nose gear pin, pitot and static covers, and other external plugs are on board and stowed.

First Aid KitCHECK

Check that the kit is sealed and stowed. If the kit is not sealed, check that it contains all required materials.

Cabin WindowsCHECK

Check that the windows are secure and in good condition. The windows should be clean and free from cracks and crazing.

Cabin Fire ExtinguisherSERVICED

Verify the cabin fire extinguisher is charged and stowed.

Emergency ExitCLEAR AND SECURE

Ensure the emergency exit is closed and lock pin is removed and stowed. Make sure the emergency exit is clear of any obstructions.

Safety EquipmentCHECK

Check that the life jackets are in good condition and stowed appropriately.

Passenger Seats and TablesCONDITION

Ensure all seats and tables are in good condition and secure. All seats should be upright: swivel seats should be locked facing forward or aft. Stow all retractable tables.

Galley (if installed)CHECK

Confirm that the galley is stocked and that all equipment is in good repair.

Carry-On Baggage Compartment (if installed) INSPECT

Inspect the baggage compartment for cleanliness. Secure all loose articles.

ToiletCONFIRM

Make sure the toilet has been serviced.

A Cabin Door

Cabin Entry Door Seal/FrameCONDITION

Inspect the door seal for cuts or abrasions. A damaged door seal can cause pressurization loss. Check for general condition of the door frame for damage and foreign objects. A damaged door frame or a foreign object will prevent normal door seal operation.

Exterior Handle STOWED

B Left Nose

Static Ports (2) CLEAR

Verify the upper and lower static ports are clear and undamaged.

Angle-of-Attack Transmitter CLEAR, ROTATES

Remove the probe cover and retain for later stowage. Ensure the probe is undamaged and moves freely.

Windshield Wiper (if installed) CONDITION
SECURE

Ice Detector (if installed) CHECK

Avionics Compartment Door SECURE

Pitot and Static Drain Ports (2) CLOSED

Nose Gear, Doors, Tire, Torque Link CONDITION
SECURE

Check the nose gear, doors and torque link for damage and alignment. Examine the nosewheel tire and tread for signs of damage or excessive wear. Check for correct tire pressure (120 ±5 PSI). Service tire with nitrogen only.

Cabin Air Discharge Duct CLEAR

Landing Light Door SECURE

Check landing light for security and signs of a burnt out bulb. For night flight, verify operation.

Pitot Mast CLEAR

Verify the pitot probe is is clear, secure and undamaged.

C Right Nose

Pitot Mast. CLEAR

Remove the pitot probe cover and retain for later stowage.
Verify the pitot probe is clear, secure and undamaged.

Landing Light Door SECURE

Check landing light for security and signs of a burnt out bulb.
For night flight, verify operation.

Cabin Air Discharge Duct CLEAR

Ensure the duct is clear and free from any damage.

Pitot and Static Drain Ports (2) CLOSED

Ensure the drain ports are closed and undamaged.

Oxygen Blowout Disc. GREEN

Ensure the green blowout disc is in place and intact. If the disc is missing, check to see if the oxygen bottle is empty and determine the cause; service is required before flight.

Avionics Compartment Door SECURE

Windshield Wiper (if installed) CONDITION/
SECURE

Angle-of-Attack Transmitter CLEAR, ROTATES

Remove the probe cover and retain for later stowage.
Ensure the probe is undamaged and moves freely.

Static Ports (2) CLEAR

Verify the upper and lower static ports are clear and undamaged.

D Right Wing

Emergency Exit SECURE

The emergency exit should be closed and flush with the fuselage. Ensure the locking pin has been removed and stowed.

Dorsal Fin Inlet CLEAR

Check that the inlet is clear and free from damage.

Wing Inspection Light CONDITION

Check the wing inspection light for security and signs of a burnt out bulb. For night flight, verify operation.

Wing Leading Edge Inlet CLEAR

Check that the inlet is clear and free from damage.

Center Fuselage Tank Drain (daily) DRAIN, SECURE

Inspect the center fuselage tank drain for damage. Use a sump drain wrench to drain any water accumulation.

Fuel Quick Drains (3) (daily) DRAIN, SECURE

Inspect the quick drains for damage. Use a sump drain wrench to drain any water accumulation.

Fuel Filler Cap SECURE

Ensure the filler cap is on and secure.

Fuel Tank Vent Inlet CLEAR

Check that the inlet is clear and free from damage.

Sniffle Valves (2) (daily) PUSH, PULL,
CHECK FOR LEAKS

Check for freedom of movement and signs of fuel leakage.

Wing Tip Vent Inlet CLEAR

Check that the inlet is clear and free from damage.

Navigation and Strobe Lights. **CONDITION**

Check the navigation and strobe lights for security. For night operation, perform a functional check of the lights.

Wing Anti-Ice Exhaust Port **CLEAR**

Check that the exhaust port is undamaged and free from obstructions.

Roll Trim Tab, Static Wicks (3), Spoilers, Flaps . . . **CONDITION**

Check the roll trim tab, spoilers and flaps for security and condition. Inspect the lower surfaces of the roll trim tab and flaps for any damage. Verify the static wicks are secure and undamaged. Check MEL for flight with missing static wicks.

Main Gear, Doors, Tire, Brake. **CONDITION**

Inspect the right main landing gear wheel well for general condition and cleanliness. Ensure there are no loose articles or fluid leaks. Verify that all cable, hydraulic and electrical runs are secure. Inspect the doors for security and any signs of damage. Check the wheels for signs of tread wear or damage. Verify the correct tire pressure (125 ±5 PSI). If required, service with nitrogen only.

Center Tank Vent Outlet. **CLEAR**

Check that the center tank vent outlet is clear and free from damage.

Mixer Bay Vent Outlet **CLEAR**

Check that the mixer bay vent outlet is clear and free from damage.

Fuel Filter Drain (daily) **DRAIN, SECURE**

Inspect the filter drain for damage. Use a sump drain wrench to drain any water accumulation.

Lower Fuselage Vent Outlets (2) **CLEAR**

Check that the lower fuselage vent outlet is clear and free from damage.

E Right Nacelle

Engine Fan Duct and Fan CONDITION

Check the fan duct for any obstruction. Check the fan blades for any signs of damage. Ensure the fan rotates freely.

Engine Inlet Screws CHECK SLIP MARKS

Generator Inlet CLEAR

Check that the generator inlet is clear and free from damage.

Oil Level and Filler Door CHECK, SECURE

Check the engine oil level; replenish oil before flight if necessary. Visually check the oil level by the dipstick. Check the oil level within 10 to 30 minutes of engine shutdown. Install filler cap and dipstick assembly in filler tube. Ensure cap is correctly installed and locked securely.

NOTE: Oil will blow out if cap is not installed and locked correctly.

Drain Lines CLEAR

Ensure that the drain lines are clear and free from damage.

Thrust Reverser CONDITION

Ensure the thrust reverser is undamaged and stowed.

Engine Exhaust and Bypass

Duct (Automatic Fuel Shutoff) CONDITION

Ensure the engine exhaust and bypass duct are clear and free from obstructions and there is no sign of damage.

F Empennage

Fuselage Fuel Filler and Sniffle Valve (daily) PUSH, PULL, CHECK FOR LEAKS

Ensure the sniffle valve is undamaged and there is freedom of movement. Check for signs of fuel leakage.

Fuselage Fuel Filler Door SECURE

Ensure the filler cap is on and secure.

Upper Aft Fuselage Vent Outlet (right) CLEAR

Ensure that the aft fuselage vent outlet is clear and free from damage.

Cooling Air Discharge Duct CLEAR

Ensure that the cooling air discharge duct is clear and free from damage.

Aft Fuselage Vent Inlet (right) CLEAR

Ensure that the aft fuselage vent inlet is clear and free from damage.

Fuel Vent Ports (2) CLEAR

Ensure that the fuel vent ports are clear and free from damage.

Stabilizer Trim, Elevator, Static Wicks (4) CONDITION

Check the stabilizer trim and elevator for security and condition. Verify the static wicks are secure and undamaged. Check MEL for flight with missing static wicks.

Rudder, Trim Tab, Static Wicks (2) CONDITION

Check the rudder, and trim tab for security and condition. Verify the static wicks are secure and undamaged. Check MEL for flight with missing static wicks.

Navigation and Strobe Lights **CONDITION**

Check the navigation and strobe lights for condition and security. For night operation, perform a functional check of the lights.

Temperature Sensor (if installed) **CHECK**

Check for signs of damage.

Aft Fuselage Vent Inlet (left) **CLEAR**

Ensure that the aft fuselage vent inlet is clear and free from damage.

Fire Extinguisher Relief Indicator **RED**

Ensure the red discharge indicator is present and the seal is undamaged.

Upper Aft Fuselage Vent Outlet (left) **CLEAR**

Ensure that the aft fuselage vent outlet is clear and free from damage.

G Aft Baggage Compartment

Hydraulic Fluid Reservoir Sight Gage **FLUID VISIBLE**

If hydraulic fluid is low, refill with MIL-H-5606 hydraulic fluid.

Fire Bottle Pressure Gages (2) **CHECK**

Ensure that each fire bottle pressure is between 580 and 600 PSIG. If the gage reads below 580 PSIG, replace the bottle.

Aft Compartment Light **OFF**

Access Doors **SECURE**

Check for signs of damage and ensure doors are closed.

External Power Service Door (GPU not used) **SECURE**

Check for signs of damage and ensure doors are closed.

H Left Nacelle

Engine Exhaust and Bypass Duct CONDITION

Ensure the engine exhaust and bypass duct are clear and free from obstructions and there is no sign of damage.

Thrust Reverser CONDITION

Ensure the thrust reverser is undamaged and stowed.

Drain Lines CLEAR

Ensure that the drain lines are clear and free from damage.

Oil Level and Filler Door CHECK, SECURE

Check the engine oil level; replenish oil before flight if necessary. Visually check the oil level by the dipstick. Check the oil level within 10 to 30 minutes of engine shutdown. Install filler cap and dipstick assembly in filler tube. Ensure cap is correctly installed and locked securely.

NOTE: Oil will blow out if cap is not installed and locked correctly.

Generator Inlet CLEAR

Check that the generator inlet is clear and free from damage.

Engine Inlet Screws CHECK SLIP MARKS

Engine Fan Duct and Fan CONDITION

Check the fan duct for any obstruction. Check the fan blades for any signs of damage. Ensure the fan rotates freely.

I Left Wing

Brake System Accumulator PressureCHECK

Ensure the brake system accumulator pressure reads 900 ±50 PSIG. If the pressure reads below 900 ±50 PSIG, charge the accumulator with nitrogen.

Fuel Filter Drain (daily)DRAIN, SECURE

Inspect the fuel filter drain for damage. Use a sump drain wrench to drain any water accumulation.

Main Gear, Doors, Tire, BrakeCONDITION

Inspect the right main landing gear wheel well for general condition and cleanliness. Ensure there are no loose articles or fluid leaks. Verify that all cable, hydraulic and electrical lines are secure. Inspect the doors for security and any signs of damage. Check the wheels for signs of tread wear or damage. Verify the correct tire pressure (125 ±5 PSI). If required, service with nitrogen only.

Flaps, Spoilers, Static Wicks (3), Roll Trim Tab . . .CONDITION

Check the roll trim tab, spoilers and flaps for security and condition. Inspect the lower surfaces of the roll trim tab and flaps for any damage. Verify the static wicks are secure and undamaged. Check MEL for flight with missing static wicks.

Wing Anti-Ice Exhaust PortCLEAR

Check that the exhaust port is clear and free from damage.

Navigation and Strobe LightsCONDITION

Check the navigation and strobe lights for security. For night operation, perform a functional check of the light.

Wing Tip Vent Inlet.CLEAR

Check that the inlet is clear and free from damage.

**Sniffle Valves (2) (daily)PUSH, PULL,
CHECK FOR LEAKS**

CAE SimuFlite

Fuel Tank Vent Inlet CLEAR

Check that the inlet is clear and free from damage.

Fuel Filler Cap SECURE

Ensure the filler cap is secure and locked on.

Fuel Quick Drains (3) (daily) DRAIN, SECURE

Inspect the quick drains for damage. Use a sump drain wrench to drain any water accumulation.

Center Fuselage Tank Drain (daily) DRAIN, SECURE

Inspect the center fuselage tank drain for damage. Use a sump drain wrench to drain any water accumulation.

Wing Leading Edge Inlet CLEAR

Check that the inlet is clear and free from damage.

Wing Inspection Light CONDITION

Check the wing inspection light for security and signs of a burnt out bulb. For night flight, verify operation.

Dorsal Fin Inlet. CLEAR

Check that the intake is clear and free from damage.