
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; Gear— RETRACT, Flaps — UP).

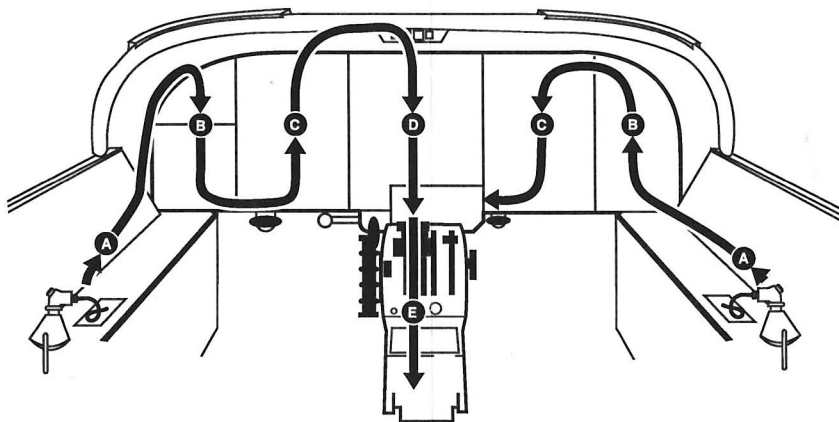
Placing items in a flow pattern or series provides organization and serves as a memory aid.

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.

Cockpit Flow Pattern (Power Off)



Cockpit Flow Pattern (Power Off) Left Seat Cockpit Setup

A

Oxygen Mask/Switches and Pressure CHECKED
 Oxygen Line GREEN BAND
 Regulator 100%
 Mask DON
 Breathe several times to ensure free flow.
 Check mask microphone is operative.
 Emergency Pressure Position CHECKED
 Passenger Oxygen Valve NORM
 Microphone Switch MIC HEADSET
 Circuit Breakers CHECKED

B

Digital Clock SET
 Audio Control Panel SET
 Rotary Test Switch OFF
 BATT Switch OFF
 Generator Switches GEN
 For GPU start OFF
 AC Inverter and Master Avionics OFF
 Boost Pumps NORM
 Ignition Switches NORM
 Anti-Ice/Deice Switches OFF
 Crossfeed OFF

Preflight Inspection

Vertical Gyro NORM
LH Gyro Slave AUTO
Exterior Light Switches OFF

C

Panel Light Control AS REQUIRED
Control Lock OFF
Standby Gyro TEST/CAGED/OFF
Passenger Advisory Lights PASS SAFETY/OFF
Beacon and Landing Lights OFF
Flight Instruments CHECKED/BUGS SET

D

Thrust Reverser Emergency Stow NORMAL
Engine Instruments OFF FLAGS IN VIEW
Avionics ON/FREQUENCIES SET
Landing Gear Handle DOWN
Pressurization/Environmental SET
Ground Idle Switch NORM
Flood Cooling (if installed) OFF

E

Throttles OFF
Flaps SELECTED
 Selector matches indicator.
Engine Sync OFF
Trim 3 SET

Right Seat Cockpit Setup

A

Oxygen Mask/Switches and Pressure CHECKED

Oxygen Line GREEN BAND

Regulator 100%

Mask DON

Breathe several times to ensure free flow.

Check mask microphone is operative.

Emergency Pressure Position CHECK

Microphone Switch MIC HEADSET

Circuit Breakers CHECKED

B

TAS Computer Switches OFF

Audio Panel SET

Digital Clock SET

C

Flight Instruments CHECKED/BUGS SET

RH Gyro Slave Switch AUTO

Overhead and Defog Fan OFF

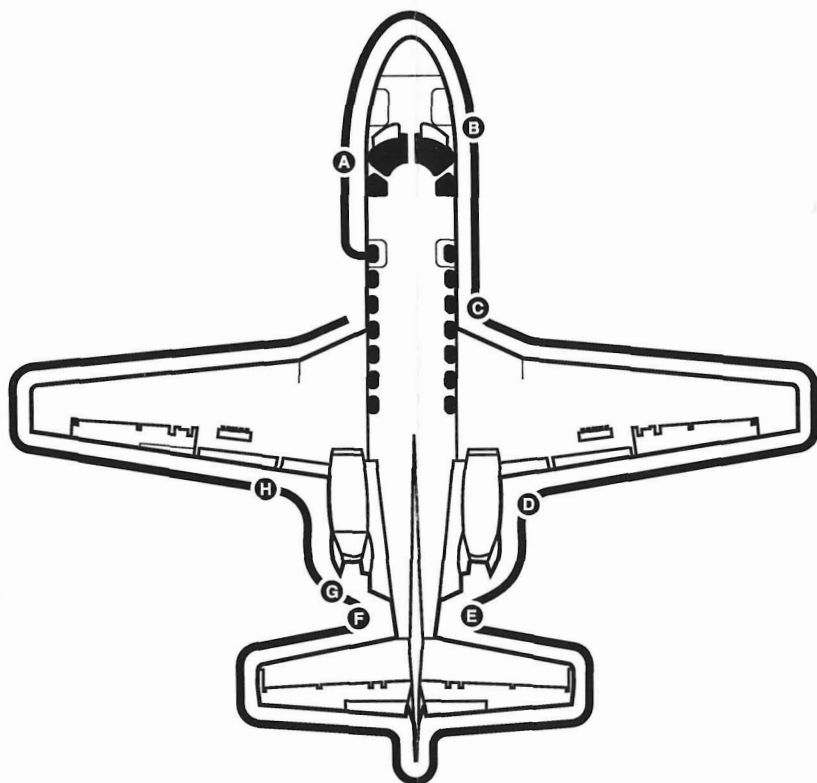
Windshield Heat Manual Control Knobs OFF

Freon Air Conditioner (if **installed**) OFF

Cockpit Power On Inspection

- Battery Switch BATT(24V DC MIN)
- Rotating Beacon O
- Pitot Heat (30 seconds) O
- Engine Instruments CHECKE
 - Check that no off flags are visible at the top of each engine instrument.
- Fuel Quantity CHECKED/BALANCE
- Annunciator Panel PROPER INDICATION
- Gear Indicator Lights 3 GREEN
- Parking Brake SET
- Pitot Heat OFF
- Battery Switch OFF
- All Other Switches OFF (OR NORM)

Exterior Inspection Walkaround Path



Exterior Inspection

A Left Nose

Refreshment Center Drain Heater CLEAR AND WARM
 Static Ports CLEAR/WARM
 Baggage Compartment 350 LBS MAXIMUM
 Nose Gear and Wheel CHECKED
 Nose Gear Tire CONDITION
 Inflation 120 $\pm$ 5 PSI
 Nose Gear Strut and Doors CHECKED
 Strut Extension . . . 3 INCHES (APPROX., FULLY FUELED)
 Pitot Tubes (both) CLEAR AND WARM

CAUTION: Touch pitot tubes lightly; to grasp firmly can cause severe burns.

B Right Nose

Nose Baggage Compartment Door OPENED

W/S Alcohol Sight Gage BALL AT TOP

Ensure fluid is visible. See Servicing chapter.

Emergency Gear/Brake Pressure Gage . . . DK GREEN ARC
1,800 TO 2,050 PSI

Power Brake Accumulator LT GREEN MARK
675 $\pm$ 25 PSI

Brake Fluid Reservoir Sight Gages:

Accumulator Pressure/Precharge PURPLE TINT/
BALL AT TOP
OF UPPER SIGHT GLASS

Accumulator Pressure Normal Pressure . . PURPLE TINT/
BALL AT TOP
OF LOWER SIGHT GLASS

Refill before operation if fluid level is not visible in the upper gage (accumulator discharged) or if fluid is at or below the top of the bottom gage (accumulator charged).

Baggage Door CLOSED/KEY-LOCKED

Overboard Vent Lines CLEAR

TAS Probe SECURE

Static Ports CLEAR/WARM

Angle of Attack Sensor CLEAR/WARM/ROTATES

C Right Wing

- Emergency Exit Door/Handle . . . FLUSH WITH FUSELAGE
- Dorsal Fin Air Inlet CLEAR
- Pylon Tailcone Air Inlet CLEAR
- Engine Fan Duct CLEAR
- Fan/Forward T₁ Sensor CONDITION
- Generator Cooling Air Inlet CLEAR
- Wing Inspection Light (if installed) CHECKED
- Anti-Ice Bleed Air Cooling Air Inlet CLEAR
- Heated Leading Edge/Vents CHECKED/CLEAR
- Scupper Drains NO FUEL VENTING
- Fuel Quick Drains (6) DRAINED/SAMPLE CHECKED
- Fuel Filter Drain DRAINED/SAMPLE CHECKED

CAUTION: Push straight up on fuel drains; the drain locks open if the sampler is turned.

- Main Gear Visual Downlock Indicator GREEN
- Main Gear Door SECURE
- Main Gear Strut SECURE/NO LEAKS
- Strut Extension (fully fueled) 2.5 INCHES
- Main Gear Tire CONDITION
- Inflation 130 ±5 PSI
- Hubcap SECURE
- Brake Wear Indicator CHECKED
- Landing Light CONDITION

Gear Uplock Release Cable CHECK TENSION
Deice Boot CONDITION
Stall Strip (2) SECURE
Fuel Filler Cap LATCH CLOSED/DIRECTED AFT
Fuel Tank Vent CLEAR
Nav/Strobe/Recognition Lights CONDITION
Static Wicks (5) SECURE
If an aileron wick is missing, replace before flight.
Aileron/Flap/Speedbrake SECURE
Ensure flaps match cockpit indicator.

D Right Nacelle

Oil Level CHECKED WITH ENGINE HOT

NOTE: Oil should be checked within 10 minutes after shutdown for an accurate reading. If in doubt, run engine for a minimum of two minutes and recheck.

Oil Filler Cap SECURE
Oil Filler Access Door FASTENED
Generator Cooling Air Exhaust CLEAR
Engine Fluid Drain Mast CLEAR
Engine Exhaust/Bypass Ducts CLEAR
Turbine Blades CONDITION
Aft T₁ Sensor CONDITION
Thrust Reversers CONDITION

E Empennage

Deice Boot Overboard Vent CLEAR
ACM Overboard Exhaust CHECKED/CLEAR
Hydraulic Fluid Drain Mast CLEAR/NO FLUID
Hydraulic Panel Access Door SECURE
Anti-Ice Bleed Air Exhaust Port CLEAR
Freon Air Conditioner Overboard Vent CLEAR
Right Horizontal Stabilizer Deice Boots CONDITION
Right Elevator/Trim Tab MOVEMENT/CONDITION

Ensure trim tab matches cockpit indicator.

Rotating Beacon CONDITION
Tailskid CONDITION
Nav/Strobe Lights CONDITION
Rudder/Servo Tab MOVEMENT/CONDITION

Ensure trim tab matches cockpit indicator.

Static Wicks (9) CONDITION

Replace missing wick(s) before flight.

Left Elevator/Trim Tab MOVEMENT/CONDITION

Ensure trim tab matches cockpit indicator.

Left Horizontal Stabilizer Deice Boot CHECKED
Oxygen Blowout Disc IN PLACE

F Tailcone

Hydraulic Fluid Quantity ABOVE REFILL

Fire Bottle Pressure Gages CHECKED

Air Cycle Machine Oil Level LEVEL ABOVE FILL

Aft Compartment Access SECURED

Aft Baggage Compartment Light OFF

Tailcone Access Door CLOSED/KEY-LOCKED

External Power Service Door SECURED

Disconnect GPU when aircraft is not attended.

Battery Cooling Intake and Vent Lines CLEAR

Windshield Heat Exchanger Overboard Exhaust . . . CLEAR

Anti-Ice Bleed Air Exhaust Port CLEAR

G Left Nacelle

Thrust Reversers **CONDITION**
Aft T₁ Sensor **CONDITION**
Engine Exhaust/Bypass Ducts **CLEAR**
Turbine Blades **CONDITION**
Engine Fluid Drain Mast **CLEAR**
Generator Cooling Air Exhaust **CLEAR**
Oil Level **CHECKED WITH ENGINE HOT**

NOTE: Oil should be checked within 10 minutes after shutdown for an accurate reading. If in doubt, run engine for a minimum of two minutes and recheck.

Oil Filler Cap **SECURED**
Oil Filler Access Door **FASTENED**

H Left Wing

Aileron/Flap/Speedbrake SECURE

Ensure flaps match cockpit indicator.

Trim Tab SECURE/PROPER SETTING

Ensure trim tab matches cockpit indicator.

Static Wicks (5) SECURE

If an aileron wick is missing, replace before flight.

Nav/Strobe/Recognition Lights CONDITION

Fuel Tank Vent CLEAR

Fuel Filler Cap LATCH CLOSED/DIRECTED AFT

Deice Boot CONDITION

Stall Strip (2) SECURE

Main Gear Visual Downlock Indicator GREEN

Main Gear Door SECURE

Main Gear Strut SECURE/NO LEAKS

Strut Extension (fully fueled) 2.5 INCHES

Main Gear Tire CONDITION

Inflation 130 $\pm$ 5 PSI

Hubcap SECURE

Brake Wear Indicator CHECKED

Landing Light CONDITION

Gear Uplock Release Cable CHECK TENSION

Fuel Quick Drains (6) DRAINED/SAMPLE CHECKED

H Left Wing (continued)

Fuel Filter Drain DRAINED/SAMPLE CHECKED

CAUTION: Push straight up on fuel drains; the drain locks open if the sampler is turned.

- Engine Fan Duct CLEAR
- Fan/Forward T₁ Sensor CONDITION
- Generator Cooling Air Inlet CLEAR
- Wing Inspection Light CHECKED
- Heated Leading Edge/Vents CHECKED/CLEAR
- Scupper Drains NO FUEL VENTING
- Anti-Ice Bleed Air Cooling Air Inlet CLEAR
- Dorsal Fin Air Inlet CLEAR
- Cabin Door Seals CONDITION

Cabin Inspection

Emergency Exit Handle STOWED

Guard IN PLACE

Locking Pin REMOVED

Passenger Seats UPRIGHT/OUTBOARD

Position the seats aft or forward to prevent blocking exits.

Door Entry Lights OFF

Luminescent Exit Placards SECURE

Portable Fire Extinguisher SERVICED/SECURE

Documents DISPLAYED

- Airworthiness certificate
- Registration Certificate
- Radio Station License

Cockpit Inspection

FAA-Approved AFM/MEL	ON BOARD/AVAILABLE
Pilot's Checklist	ON BOARD/AVAILABLE
Avionics/EFIS/FMS Pilot's Guides	ON BOARD/ AVAILABLE
Microphone/Headsets	PLUGGED IN
Oxygen Quantity	CHECKED
Oxygen Masks	PLUGGED IN/SET 100%
Oxygen Control Valve	NORMAL
Flashlight	OPERATIONAL
Portable Fire Extinguisher	SERVICED/SECURE
First Aid Kit	ON BOARD/EQUIPPED
Passenger Briefing	COMPLETED

According to Part 91.519 requirements, the pilot-in-command or a crewmember briefs the passengers on smoking, use of safety belts, location and operation of the passenger entry door and emergency exits, location and use of survival equipment, and normal and emergency use of oxygen equipment. For flights over water, the briefing should include ditching procedures and use of flotation equipment.

An exception to the oral briefing rule is if the pilot-in-command determines the passengers are familiar with the briefing content. A printed card with the above information should be available to each passenger to supplement the oral briefing.