Advance Organizer: Procedural
Version 1.0

Overview: This document provides an advance organizer (AO) of the procedural steps of the exterior preflight inspection task for a commercial aircraft as outlined in the Flight Procedures Experimental Training (FlightPET) simulation testbed.

Exterior Inspection - Captain or First Officer

Before each flight the captain must verify the airplane is in satisfactory condition for flight. Make a complete exterior inspection, and report any discrepancies to the captain and to maintenance as soon as possible. Emphasis should be placed on tire wear, airframe or control damage, and leaking fluids. Following the route below, complete the preflight at the point where the inspection began, ensuring a complete circuit around the aircraft.

Check the following specific items during the exterior inspection:

Left Forward Fuselage	
Probes, sensors, ports, vents and drains (as applicable)	Check
Doors and access panels (not in use)	Latched
Nose	
Radome	Check
Diverter strips	Secure
Doors and access panels (not in use)	Latched
Probes, sensors, ports, vents and drains (as applicable)	Check
Wipers and windshield	Check
Nose wheel spin brake (snubbers)	In place
Nose Landing Gear and Wheel Well	
Tires and wheels	Check
Gear doors	Check
Gear strut and nose wheel steering assembly	Check
Hydraulic lines and electrical wires	Check
Exterior lights	Check
Gear pin	Removed
Nose wheel steering assembly	Check
Nose gear steering lockout pin	As required
If towbar is attached, towing lever set to bypass, pin installed.	
Right Forward Fuselage	
Probes, sensors, ports, vents, and drains (as applicable)	Check
Doors and access panels (not in use)	Latched
Exterior lights	Check
Oxygen pressure relief green disc	In place
Right Inboard Wing and Lower Fuselage	
Probes, sensors, ports, vents, and drains (as applicable)	Check
Doors and access panels (not in use)	Latched
Exterior lights	Check
Pack inlet	Check
Fuel sticks	Check
Ram air deflector door	Extended
Leading edge flaps	Check
Number 2 Engine	
Doors and access panels (not in use)	Latched
Probes, sensors, ports, vents, and drains (as applicable)	Check
Fan blades and spinner	Check
Thrust reverser	Stowed
Exhaust area and tailcone	Check
Pylon	Check
Right Wing and Leading Edge	
Doors and access panels (not in use)	Latched
Probes, sensors, ports, vents, and drains (as applicable)	Check
Fuel sticks	Check
Leading Edge Slats	Check
Right Wing Tip and Trailing Edge	
Exterior lights	Check

Static discharge wicks	Check
Control surfaces	Check
Flaps and fairings	Check
Right Landing Gear and Wheel Well	
Tires, brakes and wheels	Check
Gear strut, actuators, and doors	Check
Hydraulic lines and electrical wires	Check
APU FIRE CONTROL handle	Up
NGS operability indicator light	Green
Gear pin	Removed
Right Aft Fuselage and Upper Wing Surface	
Doors and access panels (not in use)	Latched
Probes, sensors, ports, vents, and drains (as applicable)	Check
Outflow valve	Check
Negative pressure relief doors	Check
Upper wing surface condition	Check
APU air inlet	Check
Tail	
Doors and access panels (not in use)	Latched
Probes, sensors, ports, vents, and drains (as applicable)	Check
Vertical stabilizer and rudder	Check
Horizontal stabilizer and elevator	Check
Static discharge wicks	Check
Exterior lights	Check
Lower aft fuselage surface	Check
Check for evidence of tail strike damage.	
Tail skid	Check

Note: The remaining steps of the procedure have been consolidated as they are not included in the FlightPET simulation:

Left Aft Fuselage and Upper Wing Surface,
Left Landing Gear and Wheel Well
Left Wing Tip and Trailing Edge
Left Wing and Leading Edge
Number 1 Engine
Left Inboard Wing and Lower Fuselage
Left Forward Fuselage

Note: Items at each location may be checked in any sequence. Ensure that:

- surfaces and structures are clear, undamaged, not missing parts, and there are no fluid leaks;

Note: Assessing the condition of the upper wing surfaces may require viewing from inside the aircraft

- hydraulic lines and electrical wires are secure and undamaged;
- installed placards are readable;
- gear struts are not fully compressed;
- gear pins have been removed;
- engine inlets and tailpipes are clear, cowlings are secured and undamaged, and the reversers are stowed;
- doors and access panels that are not in use are latched;
- probes, sensors, ports, vents, and drains are unobstructed, clear, and undamaged;
- skin area adjacent to the pitot probes and static ports is not wrinkled;
- antennas are not damaged;
- light lenses are clean and not damaged;
- exterior lights are illuminated in accordance with lights usage

Notify maintenance if any:

- tread groove is worn completely around the tire;
- tires are worn beyond limits, damaged, or tread is separating;
- layer of cord is showing;
- questionable cut exists;

- tire shows appearance of improper inflation;
- wheel through-bolt or nut is missing or damaged.