

**Supplementary Procedure / Electrical - Power Up**

**Battery Switch.....GUARD/CLOSED**

Do Not Move The Aircraft Until The Integrated Standby Flight Display (ISFD) Alignment Is Complete

Aircraft With Flight Deck Auxiliary Power Outlets

Devices Plugged Into The Flight Deck Auxiliary Power Outlets During Electrical Power Up Will Not Be Powered Until The Plugs Are Removed and Reinserted

**Standby Power.....GUARD/CLOSED**

**Bus Transfer Switch.....GUARD/CLOSED**

**Alternate Flaps (Master Switch).....GUARD/CLOSED**

**Windshield Wiper Selector(s).....PARK**

**Electric Hydraulic Pumps Switches.....OFF**

**Landing Gear Lever.....DN**

Verify The Following

Green Landing Gear Indicator Lights Are Illuminated | Red Landing Gear Indicator Lights Are Extinguished

**Ground Power (If External Power Is Needed).....CONNECT**

Verify That The GRD Power Available Indicator Light Is Illuminated

**Ground Power Switch.....ON**

Verify The Following

Source Off Indicator Lights Are Extinguished, Transfer Bus Off Indicator Lights Are Extinguished  
Standby Power Off Indicator Light Is Extinguished

**Engine/APU Fire Warning System & Extinguishers.....TEST**

FAULT INOP & OVHT FIRE = Test | ENGINE & APU EXT (1 & 2) = Test  
ENG OVHT DET Selectors = Normal | MASTER CAUTION System = Reset

**APU.....START**

Operate At Least One Fuel Boost Pump To Supply Fuel To The APU

**APU Generator Bus Switches.....ON**

Verify The Following Items Are Extinguished

Source Off Indicator Lights, Transfer Bus Off Indicator Lights, Standby Power Off Indicator Light, APU Maint Indicator Light  
APU Low Oil Pressure Indicator Light, APU Fault Indicator Light, APU OverSpeed Indicator Light

**Wheel well Fire Warning System.....TEST**

**Supplementary Procedure / Electrical - Standby Power Test**

**Battery Switch.....ON**

**AC/DC Meter Selectors.....STBY PWR**

**APU Generator Switches (1 & 2).....OFF**

If APU Generator Is Online

**Ground Power Switch.....OFF**

If Ground Power Is Online

**Standby Power Switch.....OFF**

Confirm Standby Power Off Indicator Light Illuminates

**AC/DC Voltmeters.....ZERO**

**Standby Power Switch.....BAT**

Confirm Standby Power Off Indicator Light Extinguishes

**AC/DC Voltmeters.....CHECK**

AC Voltmeter 115 +/- 5 Volts | DC Voltmeter 24 +/- 2 Volts

**Frequency Meter.....CHECK**

Check Frequency Meter For Normal Indication: 400 +/- 10 CPS

**DC Voltmeter Selector.....BAT**

Check DC Voltmeter For Normal Indication: 24 +/- 2 Volts  
Check DC Ammeter For Discharge Indication: A Negative Value

**DC Voltmeter Selector.....AUTO BAT**

Check DC Voltmeter For Normal Indication: 24 +/- 2 Volts  
Check DC Ammeter For Discharge Indication: A Negative Value

**Standby Power Switch.....AUTO**

**APU Generator Switches (1 & 2).....ON**

If APU Generator Is Online

**Ground Power Switch.....ON**

If Ground Power Is Online

WARNING

It May Take Up To 3 Minutes For The CDS Displays To Recover  
When Power Is Interrupted For More Than 2 Seconds On The Ground

Preliminary Preflight Procedure / Overhead

IRS Mode Selectors.....OFF, then NAV

Verify The Following

ON DC Indicator Lights Illuminate Then Extinguish & Align Indicator Lights Illuminate
The Unable Req'd Nav Perf-Rnp Message May Show Until The IRS Alignment Is Complete

Voice Recorder Switch.....AS NEEDED

Oxygen Pressure.....CHECK

Verify Sufficient For Flight

Hydraulic Quantity.....CHECK

Verify Sufficient For Flight

Engine Oil Quantity.....CHECK

Verify Sufficient For Flight

Maintenance Documents.....CHECK

Flight Deck Access System Switch.....GUARD/CLOSED

Emergency Equipment.....CHECK

Fire Extinguisher: Checked/Stowed | Crash Axe: Stowed
Escape Rope: Stowed | Other Needed Equipment: Checked/Stowed

PSEU Light.....VERIFY EXTINGUISHED

GPS Light.....VERIFY EXTINGUISHED

ILS Light.....VERIFY EXTINGUISHED

GLS Light.....VERIFY EXTINGUISHED

Service Interphone Switch.....OFF

Engine Panel.....SET

Verify The Following

Reverser Indicator Lights Are Extinguished | Engine Control Indicator Lights Are Extinguished

EEC Switches.....ON

Oxygen Panel.....SET

Passenger Oxygen Switch: Guard/Closed

Verify Passenger Oxygen Indicator Light Is Extinguished And That The Pressure Meets Dispatch Requirements

Landing Gear Indicator Lights.....ILLUMINATED

Flight Recorder Switch.....GUARD/CLOSED

Circuit Breakers (P6 Panel).....CHECK

Manual Gear Extension Access Door.....CLOSED

Circuit Breakers (P18 Panel).....CHECK

Parking Brake.....AS NEEDED

Set Parking Brake If Brake Wear Indicators Are Going To Be Checked During Inspection

CDU Preflight Procedure

Initial Data.....SET

Verify The Following

Model & Engine Rating Are Correct & Navigation Data Base Active Date Range Is Current

POS INIT.....SET

Verify/Set The Following

Time Is Correct & Enter Present Position On The SET IRS POS Line

Navigation Data.....SET

Enter The Following

Table with 3 columns: Route Page, Departures Page, Legs Page. Each cell contains instructions for setting up the respective page.

Performance Data.....SET

Enter The Following

Table with 3 columns: Perf Init Page, N1 Limit Page, Takeoff Ref Page. Each cell contains instructions for setting up the respective page.

## Exterior Inspection

**Conduct Exterior Inspection.....COMPLETE**

Before Each Flight The Captain, First Officer, or Maintenance Crew Must Verify The Aircraft Is Satisfactory For Flight

## Preliminary Preflight Procedure / Overhead

**Flight Control Switches.....GUARDS/CLOSED**

Verify That The Flight Control Low Pressure Indicator Lights Are Illuminated

**Flight Spoiler Switches.....GUARDS/CLOSED****Yaw Damper Switch.....ON**Verify The Following

Yaw Damper Indicator Light Is Extinguished | STBY RUD ON Indicator Light Is Extinguished

Standby Hydraulic Low Quantity Indicator Light and Standby Hydraulic Low Pressure Indicator Light Is Extinguished

**Alternate Flaps Master Switch.....GUARD/CLOSED****Alternate Position Switch.....OFF**Verify The Following

FEEL DIF PRESS &amp; SPEED TRIM FAIL Indicator Lights Are Extinguished

MACH TRIM FAIL &amp; AUTO SLAT FAIL Indicator Lights Are Extinguished

**Navigation/VHF NAV Switch.....NORMAL****Navigation/IRS Transfer Switch.....NORMAL****Navigation/FMC Transfer Switch.....NORMAL****Display/SOURCE Selector.....AUTO****Display/CONTROL PANEL Selector.....NORMAL****Cross Feed Selector.....CLOSED**

Verify That The Valve Open Indicator Light Is Extinguished

**Fuel Pump Switches.....CHECK/SET**Verify The Following

Center Tank Fuel Pump Low Pressure Indicator Lights Are Extinguished

Main Tank Fuel Pump Low Pressure Indicator Lights Are Illuminated

Operate At Least One Fuel Boost Pump To Supply Fuel To The APU

**Auxiliary Fuel Transfer Pumps.....AUTO**

BBJ Aircraft Only

**Battery Switch.....GUARD/CLOSED****CAB/UTIL.....ON****IFE/PASS SEAT.....ON****Standby Power.....GUARD/CLOSED**Verify The Following

STANDBY PWR OFF &amp; BAT DISCHARGE Indicator Lights Are Extinguished

TR UNIT &amp; ELEC Indicator Lights Are Extinguished

**Generator Drive Disconnect Switches.....GUARDS/CLOSED**

Verify That The DRIVE Indicator Lights Are Illuminated

**BUS TRANSFER Switch.....GUARD/CLOSED**

Verify That The TRANSFER BUS OFF &amp; SOURCE OFF Lights Are Extinguished

Verify That The GEN OFF BUS Indicator Lights Are Illuminated

**Lavatory Smoke Light.....EXTINGUISHED****Equipment Cooling Switches.....NORM**

Verify That The OFF Indicator Lights Are Extinguished

**Emergency Exit Lights Switch (Inoperable On BBJ).....GUARD/CLOSED**

Verify That The NOT ARMED Indicator Lights Are Extinguished

**Passenger Signs (Inoperable On BBJ).....SET**

No Smoking Switch &amp; Fasten Seat Belt Switch, Set To AUTO or ON

**Windshield Wiper Selectors.....PARK**

Verify That The Windshield Wipers Are Stowed

**Window Heat Switches.....ON**

Position Switches ON At Least 10 Minutes Before Takeoff

Verify That The Overheat Indicator Lights Are Extinguished

Verify That The ON Indicator Lights Are Illuminated

(Except At High Ambient Temperatures)

Verify That The OFF Indicator Lights Are Extinguished

(Except At High Ambient Temperatures)

**Probe Heat Switches.....OFF**

Verify That All Indicator Lights Are Illuminated

## Preliminary Preflight Procedure / Overhead

|   |                       |
|---|-----------------------|
| <b>Wing Anti-Ice Switch</b> .....   | <b>OFF</b>            |
| Verify That The VALVE OPEN Indicator Lights Are Extinguished<br>Verify That The ICE DETECTOR Indicator Light Is Extinguished  |                       |
| <b>Engine Anti-Ice Switches</b> .....   | <b>OFF</b>            |
| Verify That The COWL ANTI-ICE Indicator Lights Are Extinguished<br>Verify That The COWL VALVE OPEN Indicator Lights Are Extinguished  |                       |
| <b>Hydraulic Pumps Engine Switches</b> .....  | <b>ON</b>             |
| Verify That The LOW PRESSURE Indicator Lights Are Illuminated   |                       |
| <b>Hydraulic Pumps Electric Switches</b> .....  | <b>OFF</b>            |
| Verify That The OVERHEAT Indicator Lights Are Extinguished<br>Verify That The LOW PRESSURE Indicator Lights Are Illuminated   |                       |
| <b>High Altitude Landing Switch</b> .....   | <b>AS NEEDED</b>      |
| Verify That The INOP Indicator Light Is Extinguished  |                       |
| <b>Air Temperature Source Selector</b> .....  | <b>AS NEEDED</b>      |
| <b>TRIM AIR Switch</b> .....  | <b>ON</b>             |
| Verify That The DUCT OVERHEAT Indicator Lights Are Extinguished<br>Verify That The ZONE TEMP Indicator Lights Are Extinguished  |                       |
| <b>Temperature Selectors</b> .....  | <b>AS NEEDED</b>      |
| Verify That The RAM DOOR FULL OPEN Indicator Lights Are Illuminated   |                       |
| <b>Recirculation Fan Switches</b> .....   | <b>AUTO</b>           |
| Verify That The Air Conditioning Switches Are Set To AUTO or HIGH   |                       |
| <b>Isolation Valve Switch</b> .....   | <b>OPEN</b>           |
| <b>Engine Bleed Air Switches</b> .....  | <b>ON</b>             |
| <b>APU Bleed Air Switch</b> .....   | <b>ON</b>             |
| <u>Verify The Following</u><br>DUAL BLEED Light Is Illuminated<br>PACK & PACK TRIP OFF Lights Are Extinguished<br>WING-BODY OVERHEAT & BLEED TRIP OFF Lights Are Extinguished   |                       |
| <b>Cabin Pressurization Panel</b> .....   | <b>SET</b>            |
| <u>Verify The Following</u><br>AUTO FAIL & OFF SCHED DESCENT Indicator Lights Are Extinguished<br>Flight Altitude Indicator: <u>Enter Cruise Altitude</u><br>Landing Altitude Indicator: <u>Enter Destination Field Elevation</u> |                       |
| <b>Pressurization Mode Selector</b> .....   | <b>AUTO</b>           |
| Verify That The ALTN & MANUAL Indicator Lights Are Extinguished   |                       |
| <b>Landing Lights Switch</b> .....  | <b>RETRACT/OFF</b>    |
| <b>Runway Turnoff Light Switches</b> .....  | <b>OFF</b>            |
| <b>Taxi Light Switch</b> .....  | <b>OFF</b>            |
| <b>Ignition Select Switch</b> .....   | <b>IGN L or IGN R</b> |
| Alternate The Ignition Select Switch Position On Subsequent Starts  |                       |
| <b>Engine Start Switches</b> .....  | <b>AUTO or OFF</b>    |
| With Automatic Ignition, Set To AUTO / Without Automatic Ignition, Set To OFF   |                       |
| <b>Logo Light Switch</b> .....  | <b>AS NEEDED</b>      |
| <b>Position Light Switch</b> .....  | <b>AS NEEDED</b>      |
| <b>Strobe Light Switch</b> .....  | <b>OFF</b>            |
| <b>Anti-Collision Light Switch</b> .....  | <b>OFF</b>            |
| <b>Wing Illumination Switch</b> .....   | <b>AS NEEDED</b>      |
| <b>Wheel Well Light Switch</b> .....  | <b>AS NEEDED</b>      |

**Preliminary Preflight Procedure / Forward Panel & Pedestal**

**Course Selectors.....SET**

**Flight Director Switches.....ON**

Move The F/D Switch For Pilot Flying To ON First

**EFIS Control Panel.....SET**

Set The Following

Minimums: Select RADIO or BARO | Minimums: Set D/H or Altitude Reference  
 Barometric Reference Selector: IN or HPA | Barometric Selector Set QNH  
 Mode Selector: Map | Weather Radar: Off

Set The Following As Needed

Flight Path Vector Switch | Meters Switch | VOR/ADF Switches  
 Center Switch | Range Selector | Traffic Switch | Map Switches

**Crew Oxygen Pressure.....CHECK**

Verify That The Pressure Is Sufficient For Dispatch

**Oxygen Mask.....STOWED/CLOSED**

**Oxygen Reset/Test.....PRESS/HOLD**

Verify That The Yellow Cross Shows Momentarily In The Flow Indicator

**Oxygen Mask Emergency Test Selector.....PRESS/HOLD**

Continue To Press The Oxygen Reset/Test Button While Pressing The  
 Oxygen Mask Emergency Test Selector For 5 Seconds  
 Verify That The Yellow Cross Shows Continuously In The Flow Indicator

Verify That The Crew Oxygen Pressure Does Not Decrease More Than 100 psig  
 Release The Oxygen Reset/Test & Oxygen Mask Emergency Test Buttons  
 Verify That The Yellow Cross No Longer Shows In The Flow Indicator  
 Normal/100% - Switch - 100%

**Electronic Flight Bag.....SET**

**Clock.....SET**

**Nose Wheel Steering Switch.....GUARD/CLOSED**

**Main Panel Display Unit Selector.....NORM**

**Lower Display Unit Selector.....NORM**

**Takeoff Config Light.....EXTINGUISHED**

If Installed And Operative

**Cabin Altitude Light.....EXTINGUISHED**

If Installed And Operative

**Disengage Light Test Switch.....HOLD TO 1**

Verify That The A/P Indicator Light Is Illuminated Steady Amber  
 Verify That The A/T Indicator Light Is Illuminated Steady Amber  
 Verify That The FMC Indicator Light Is Illuminated Steady Amber

**Disengage Light Test Switch.....HOLD TO 2**

Verify That The A/P Indicator Light Is Illuminated Steady Red  
 Verify That The A/T Indicator Light Is Illuminated Steady Red  
 Verify That The FMC Indicator Light Is Illuminated Steady Red

Do The Initial Data And Navigation Data Steps From The CDU Preflight  
 Procedure And Verify That The IRS Alignment Is Complete  
 Before Checking The Flight Instruments

**Flight Instruments.....CHECK**

Verify That The Flight Instrument Indications Are Correct

Verify That These Flags Are Shown

TCAS OFF | NO VSPD Until V-Speeds Are Selected | Expected RMI Flags

Verify That The Flight Mode Annunciations Are Correct

Autothrottle Mode Is Blank | Roll mode Is Blank | AFDS Status Is FD  
 After Verification Select MAP MODE

**Standby Instruments.....CHECK**

Standby Horizon: Set

Gyro Caging Control: Pull, then Release | Approach Mode Selector: As Needed  
 Verify Flight Instruments Are Correct | Verify No Flags Are Shown

Standby Altimeter: Set

Verify Flight Instruments Are Correct | Verify No Flags Are Shown

**Integrated Standby Flight Display.....SET**

Verify Approach Mode Display Is Blank | Set Altimeter  
 Verify Flight Instruments Are Correct | Verify No Flags Are Shown

## Preliminary Preflight Procedure / Forward Panel &amp; Pedestal

|   |                          |
|---|--------------------------|
| <b>Standby RMI</b> .....  | <b>SET</b>               |
| Select Either VOR or ADF  |                          |
| <b>Brake Temp Light</b> .....   | <b>EXTINGUISHED</b>      |
| <b>Flap Inhibit Switch</b> .....  | <b>GUARD/CLOSED</b>      |
| <b>Gear Inhibit Switch</b> .....  | <b>GUARD/CLOSED</b>      |
| <b>Terrain Inhibit Switch</b> .....                                     | <b>GUARD/CLOSED</b>      |
| Verify That The INOP Indicator Light Is Extinguished                    |                          |
| <b>Landing Gear Lever</b> .....   | <b>DN</b>                |
| <u>Verify The Following</u>   |                          |
| Green Landing Gear Indicator Lights Are Illuminated                     |                          |
| Red Landing Gear Indicator Lights Are Extinguished                      |                          |
| <b>Auto Brake Selector Switch</b> .....                                 | <b>RTO</b>               |
| Verify That The Auto Brake Disarm Light Is Extinguished                 |                          |
| <b>Antiskid INOP Light</b> .....  | <b>EXTINGUISHED</b>      |
| <b>N1 Set Selector</b> .....  | <b>AUTO</b>              |
| <b>Speed Reference Selector</b> .....                                   | <b>AUTO</b>              |
| <b>Fuel Flow Switch</b> .....   | <b>RESET, then RATE</b>  |
| <b>Engine Instruments</b> .....   | <b>CHECK</b>             |
| Verify: Primary & Secondary Engine Indications Show Existing Conditions |                          |
| Verify: No Exceedance Shown & Hydraulic Quantity Does Not Show RF       |                          |
| <b>MFD Cancel/Recall Switch</b> .....                                   | <b>PUSH</b>              |
| Verify That The Autoland Status Advisory Messages Are Not Shown         |                          |
| <b>Speed Brake Lever</b> .....  | <b>DOWN/DETENT</b>       |
| Verify That The Speed Brake Armed Indicator Light Is Extinguished       |                          |
| Verify That The Speed Brake Do Not Arm Indicator Light Is Extinguished  |                          |
| Verify That The Speedbrakes Extended Indicator Light Is Extinguished    |                          |
| <b>Reverse Thrust Levers</b> .....                                      | <b>DOWN</b>              |
| <b>Forward Thrust Levers</b> .....                                      | <b>CLOSED</b>            |
| <b>Flap Lever</b> .....   | <b>SET</b>               |
| Set Flap Level To Agree With The Flap Position                          |                          |
| Verify That The Flap Load Relief Indicator Light Is Extinguished        |                          |
| <b>Parking Brake</b> .....  | <b>SET</b>               |
| Verify That The Parking Brake Warning Light Is Illuminated              |                          |
| Do Not Assume That The Parking Brake Will Prevent Airplane Movement     |                          |
| Accumulator Pressure Can Be Insufficient                                |                          |
| <b>Engine Start Levers</b> .....  | <b>CUTOFF</b>            |
| <b>Stabilizer Trim Cutout Switches</b> .....                            | <b>NORMAL</b>            |
| <b>HUD System</b> .....   | <b>AS NEEDED</b>         |
| <b>Radio Tuning Panel</b> .....   | <b>SET</b>               |
| <b>WARNING</b>  |                          |
| Do Not Key HF Radio While Aircraft Is Being Fueled                      |                          |
| Injury To Personnel or Fire May Result                                  |                          |
| <b>VHF Communications Radios</b> .....                                  | <b>SET</b>               |
| <b>VHF Navigation Radios</b> .....                                      | <b>SET FOR DEPARTURE</b> |
| <b>Audio Control Panel</b> .....  | <b>SET</b>               |
| <b>ADF Radios</b> .....   | <b>SET</b>               |
| <b>Weather Radar Panel</b> .....  | <b>SET</b>               |
| <b>Transponder Panel</b> .....  | <b>SET</b>               |
| <b>Stabilizer Trim Override Switch</b> .....                            | <b>GUARD/CLOSED</b>      |

## Pushback Procedure / Before Start Procedure

|  |                            |
|--|----------------------------|
| <b>Flight Deck Door</b> .....  | <b>CLOSED &amp; LOCKED</b> |
| Verify That The LOCK FAIL Indicator Light Is Extinguished  |                            |
| <b>CDU Display</b> .....   | <b>SET</b>                 |
| <b>N1 Bugs</b> .....   | <b>CHECK</b>               |
| Verify That The N1 Reference Bugs Are Correct  |                            |
| <b>IAS Bugs</b> .....  | <b>SET</b>                 |
| <u>Verify The Following</u>  |                            |
| Speed Bugs Are Set At V1, VR, V2 + 15, And Flaps Up Maneuvering Speed  |                            |
| <b>MCP</b> .....   | <b>SET</b>                 |
| Autothrottle Arm Switch: ARM   IAS/MACH Selector: Set V2<br>Arm LNAV As Needed   Arm VNAV   Set Initial Heading & Altitude   |                            |
| <b>Taxi &amp; Takeoff Briefings</b> .....  | <b>COMPLETE</b>            |
| <b>Exterior Doors</b> .....  | <b>VERIFY CLOSED</b>       |
| <b>Flight Deck Windows</b> .....   | <b>CLOSED &amp; LOCKED</b> |
| <b>Establish Communications With Ground Crew</b> .....   | <b>COMPLETE</b>            |
| Do Not Hold or Turn The Nose Wheel Steering Wheel During Pushback - This Can Damage The Nose Gear or Tow Bar<br>Do not Use The Airplane Brakes To Stop The Airplane During Pushback - This Can Damage The Nose Gear or Tow Bar |                            |
| <b>Parking Brake</b> .....   | <b>SET</b>                 |
| Set or Release The Parking Brake As Directed By Ground Crew<br><u>When Pushback Is Complete</u>  |                            |
| Verify That The Tow Bar Is Disconnected - Verify That The Nose Gear Lockout Pin Is Removed   |                            |
| <b>Fuel Panel</b> .....  | <b>SET</b>                 |
| <u>If Center Fuel Tank Quantity Exceeds 1,000 Pounds</u>   |                            |
| Left & Right Center Fuel Pumps Switches: ON  |                            |
| Verify That The Low Pressure Lights Illuminate Momentarily, Then Extinguish  |                            |
| If The Low Pressure Lights Stay Illuminated, Turn Off Center Fuel Pumps  |                            |
| AFT & Forward Fuel Pumps Switches: ON  |                            |
| Verify That The Low Pressure Lights Illuminate Are Extinguished  |                            |
| <b>Hydraulic Panel</b> .....   | <b>SET</b>                 |
| System A Hydraulic Pump Switches: OFF  |                            |
| Verify That The System A Pump Low Pressure Lights Are Illuminated  |                            |
| System B Hydraulic Pump Switches: ON   |                            |
| Verify That The System B Pump Low Pressure Lights Are Extinguished   |                            |
| Verify That Brake Pressure Is 2800 psi Minimum   |                            |
| Verify That Hydraulic System B Pressure Is 2800 psi Minimum  |                            |
| Electric Hydraulic Pump Switches: ON   |                            |
| Verify That The Electric Pump Low Pressure Lights Are Extinguished   |                            |
| Verify That Brake Pressure Is 2800 psi Minimum   |                            |
| Verify That The System A & B Pressures Are 2800 psi Minimum  |                            |
| <b>Position Lights</b> .....   | <b>STEADY &amp; STROBE</b> |
| <b>Anti Collision Light Switch</b> .....   | <b>ON</b>                  |
| <b>Trim</b> .....  | <b>SET</b>                 |
| Check Each Trim For Freedom Of Movement  |                            |
| <b>Stabilizer Trim</b> .....   | <b>UNITS</b>               |
| Set Trim For Takeoff   Verify Trim Is In The Green Band   Aileron Trim: 0   Rudder Trim: 0   |                            |

## Engine Start Procedure

Select Secondary Engine Indications

|  |                       |
|--|-----------------------|
| <b>Air Conditioning Pack Switches</b> .....                            | <b>OFF</b>            |
| <b>Start Sequence</b> .....  | <b>ANNOUNCE</b>       |
| <b>Right Engine Start Switch</b> .....                                 | <b>GRD</b>            |
| Verify N2 RPM Increases  |                       |
| <b>Right Engine Start Lever</b> .....                                  | <b>IDLE AT 20% N2</b> |
| Right Engine Start Switch / Confirm Return To Auto                     |                       |
| Verify That The Start Valve Open Alert Extinguishes                    |                       |
| Monitor N1, N2, EGT, Fuel Flow and Oil Pressure For Normal Indications |                       |
| When The Engine Is Stable At Idle, Start The Other Engine              |                       |
| <b>Left Engine Start Switch</b> .....                                  | <b>GRD</b>            |
| Verify N2 RPM Increases  |                       |
| <b>Left Engine Start Lever</b> .....                                   | <b>IDLE AT 20% N2</b> |
| Left Engine Start Switch / Confirm Return To Auto                      |                       |
| Verify That The Start Valve Open Alert Extinguishes                    |                       |
| Monitor N1, N2, EGT, Fuel Flow and Oil Pressure For Normal Indications |                       |

## Before Taxi Procedure

|  |                          |
|--|--------------------------|
| <b>Generator 1 &amp; 2 Switches</b> .....  | <b>ON</b>                |
| <b>AC Voltmeter Selector</b> .....   | <b>GEN1 or GEN2</b>      |
| <b>Probe Heat Switches</b> .....   | <b>ON</b>                |
| <b>Wing Anti-Ice Switch</b> .....  | <b>AS NEEDED</b>         |
| <b>Engine Anti-Ice Switches</b> .....  | <b>AS NEEDED</b>         |
| <b>System A Hydraulic Pump Switches</b> .....  | <b>ON</b>                |
| <b>Pack Switches</b> .....   | <b>AUTO</b>              |
| <b>Isolation Valve Switch</b> .....  | <b>AUTO</b>              |
| <b>APU Bleed Air Switch</b> .....  | <b>OFF</b>               |
| <b>Engine Start Switches</b> .....   | <b>CONT</b>              |
| <b>Engine Start Levers</b> .....   | <b>IDLE/DETENT</b>       |
| Verify Ground Equipment Is Clear   |                          |
| <b>Flaps Lever</b> .....   | <b>SET TAKEOFF FLAPS</b> |
| Verify That The LE FLAPS EXT Green Light Is Illuminated  |                          |
| <b>Flight Controls</b> .....   | <b>CHECK</b>             |
| Verify Freedom Of Movement & Return To Center  |                          |
| <b>Lower Display Unit</b> .....  | <b>BLANK</b>             |
| <b>Transponder</b> .....   | <b>AS NEEDED</b>         |
| Airports Where Ground Tracking Is Not Available, Select STBY<br>Airports Equipped To Track Aircraft On The Ground<br>Select An Active Transponder Setting, But Not A TCAS Mode |                          |
| <b>Recall</b> .....  | <b>CHECK</b>             |
| Verify All System Annunciator Panel Lights Illuminate & Then Extinguish  |                          |
| <b>EFB Airport Map Application</b> .....   | <b>SELECT</b>            |
| Do Not Use The Airport Map Application As A Primary Navigation Reference<br>The Airport Map Application<br>Is Designed To Aid Flight Crew Positional Awareness Only            |                          |

## Taxi Procedure / Before Takeoff Procedure

|   |                      |
|---|----------------------|
| <b>Taxi Light Switch</b> .....  | <b>ON</b>            |
| <b>Runway Turnoff Light Switches</b> .....  | <b>ON</b>            |
| <b>Flaps</b> .....  | <b>SET</b>           |
| Confirm Flaps Are Set For Takeoff   |                      |
| <b>Stabilizer Trim</b> .....  | <b>SET</b>           |
| Confirm Trim Is Set For Takeoff   Confirm Trim Is In The Green Band   |                      |
| <b>Parking Brake</b> .....  | <b>RELEASED</b>      |
| <u>Center Fuel Tank Quantity Check</u><br>Both Center Fuel Tank Pump Switches Must Be Off For Takeoff<br>If The Center Tank Has Less Than 5000 Pounds Of Fuel |                      |
| <b>Weather Radar Display</b> .....  | <b>AS NEEDED</b>     |
| <b>Terrain Display</b> .....  | <b>AS NEEDED</b>     |
| <b>Cabin Notification</b> .....   | <b>CREW NOTIFIED</b> |
| Verify Cabin Is Secure And Notify The Cabin Crew To Prepare For Takeoff   |                      |

## Cleared Into Position / Takeoff Procedure

|  |                          |
|--|--------------------------|
| <b>Exterior Lights</b> .....   | <b>ON</b>                |
| Landing, Anti Collision, Strobe And Wing Lights, Logo Lights On At Night   |                          |
| <b>Clock ETE</b> .....   | <b>RUN</b>               |
| <b>Transponder</b> .....   | <b>TA/RA</b>             |
| <b>Brakes</b> .....  | <b>RELEASED</b>          |
| <b>Throttles</b> .....   | <b>ADVANCE TO 40% N1</b> |
| Allow Engines To Stabilize   |                          |
| <b>Auto Throttle (Engage)</b> .....  | <b>TO/GA</b>             |
| Verify Proper Thrust Prior To 80 Kts, Observe Takeoff Thrust Being Set,<br>Verify 80 Kts, Verify Throttle Hold, Monitor Airspeed For V1 And VR,<br>Rotate At VR Until Airborne, Then Follow F/D Pitch Commands |                          |

After Takeoff

Positive Rate Of Climb.....GEAR UP

Once The Gear Is Retracted, Place The Gear Lever In The Off Position  
Above 400 Feet Radio Altitude, Call for A Roll Mode As Needed  
At Thrust Reduction Height, Verify Climb Thrust Is Set

Flaps.....RETRACT

Retract Flaps According To The Flaps Schedule  
After Flaps/Slats Retraction, Activate VNAV

Autopilot.....SET & ENGAGE

Engage Autopilot  
When Above The Minimum Altitude For Autopilot Engagement

Engine Bleeds.....SET/VERIFY

Engine Start Switches.....AUTO or OFF

With Automatic Ignition, Set To AUTO / Without Automatic Ignition, Set To OFF

Auto Brake Selector Switch.....OFF

Climb / Cruise Procedure

At 10,000 Feet.....LANDING LIGHTS OFF

This Include Taxi, Runway Turnoff, Wing And Logo Lights

Fuel Pumps.....SET/VERIFY

If The Center Fuel Tank Pumps Were Turned Off For Takeoff And The  
Center Tank Contains More Than 1000 Pounds Of Fuel, Set Both  
Center Fuel Tank Pumps To On Above 10,000 Feet

When The Center Tank Fuel Quantity Reaches Approximately 1000 Pounds  
Turn Off The Center Fuel Tank Pumps

Passenger Signs (Inoperable On BBJ).....AS NEEDED

Transition Altitude.....29.92in / 1013hpa

Level Off At Assigned Altitude.....CONFIRM

Flight Progress.....MONITOR

Arrival Procedure.....PREPARE

Before Top Of Descent  
Modify The Active Route As Needed For The Arrival And Approach  
Verify or Enter The Correct RNP For Arrival

Descent Procedure

Pressurization.....AIRPORT ALTITUDE

Passenger Signs (Inoperable On BBJ).....AUTO or ON

Recall.....CHECKED

Recall & Review System Annunciator Lights

Autobrake.....SET

Landing Data.....VREF \_\_, MINIMUMS \_\_

Enter/Verify VREF On The Approach REF Page  
Set Radio/Baro Minimums As Needed For approach  
Set/Verify Navigation Radios & Course For The Approach

Approach Briefing.....COMPLETED

Approach Procedure

Transition Altitude.....SET LOCAL QNH

At 10,000 Feet.....LANDING LIGHTS ON

This Includes The Following  
Landing, Anti Collision, Strobe And Wing Lights, Logo Lights On At Night

Approach Briefing.....COMPLETE

An ILS & Instrument Approach Using VNAV Procedures  
Are Included On The Next Page

## Landing Procedure - (ILS)

|   |                      |
|---|----------------------|
| <b>Cabin Notification</b> .....   | <b>CREW NOTIFIED</b> |
| Notify Cabin Crew To Prepare For Landing   Verify Cabin Is Secure   |                      |
| <b>Flaps</b> .....  | <b>EXTEND</b>        |
| Extend Flaps According To The Flaps Schedule<br>Monitor Flaps/Slats Extension   |                      |
| <b>Localizer Intercept</b> .....  | <b>VERIFY</b>        |
| Verify ILS Is Tuned & Identified<br>Verify The LOC & G/S Pointers Are Shown<br>Verify That The Localizer Is Captured  |                      |
| <b>Glide Slope</b> .....  | <b>WHEN ACTIVE</b>   |
| Set Flaps Lever to 15 Degrees   |                      |
| <b>Engine Start Switches</b> .....  | <b>CONT</b>          |
| <b>Speed Brake</b> .....  | <b>ARM</b>           |
| Verify That The Speed Brake Armed Light Is Illuminated  |                      |
| <b>Landing Gear</b> .....   | <b>DN</b>            |
| Verify That The Green Landing Lights Illuminate   |                      |
| <b>Glide Slope</b> .....  | <b>CAPTURED</b>      |
| Set Flaps For Landing In Accordance With The Flaps Schedule<br>Enter Missed Approach Altitude On The MCP<br>At Final Approach Fix or OM, Verify The Crossing Altitude<br>Monitor The Approach & Verify Autoland Status At 500 Feet Radio Altitude |                      |

## Landing Procedure - (Instrument Approach Using VNAV)

|   |                          |
|---|--------------------------|
| <b>Cabin Notification</b> .....   | <b>CREW NOTIFIED</b>     |
| Notify Cabin Crew To Prepare For Landing   Verify Cabin Is Secure   |                          |
| <b>Flaps</b> .....  | <b>EXTEND</b>            |
| Extend Flaps According To The Flaps Schedule<br>Monitor Flaps/Slats Extension   |                          |
| <b>Roll Mode For Final Approach</b> .....   | <b>VERIFY</b>            |
| For A RNAV or GPS Approach Use LNAV<br>For A LOC-BC, VOR or NDB Approach Use LNAV<br>For A LOC, SDF or LDA Approach, Use LNAV or VOR/LOC<br>Verify That The VNAV Glide Path Angle Is Shown On The<br>Final Approach Segment Of The LEGS Page  |                          |
| <b>Final Approach Course</b> .....  | <b>INTERCEPT HEADING</b> |
| When On Final Approach Intercept Heading For LOC, LOC-BC, SDF or LDA<br>Verify That The Localizer Is Tuned & Identified<br>Verify That The LOC Pointer Is Shown<br>Select LNAV or Arm The VOR/LOC<br>Use LNAV or HDG SEL To Intercept The Final Approach Course As Needed<br>Verify That LNAV IS Engaged or That VOR/LOC Is Captured<br>Approximately 2NM Before Final Approach Fix And After ALT Hold or<br>VNAV PTH or VNAV ALT Is Annunciated<br>Verify Autopilot Is Engaged   Set DA (H) or MDA (H) On The MCP<br>Select or Verify Speed Intervention   Select or Verify VNAV |                          |
| <b>Glide Slope</b> .....  | <b>WHEN ACTIVE</b>       |
| Set Flaps Lever to 15 Degrees   |                          |
| <b>Engine Start Switches</b> .....  | <b>CONT</b>              |
| <b>Speed Brake</b> .....  | <b>ARM</b>               |
| Verify That The Speed Brake Armed Light Is Illuminated  |                          |
| <b>Landing Gear</b> .....   | <b>DN</b>                |
| Verify That The Green Landing Lights Illuminate   |                          |
| <b>Final Approach Descent</b> .....   | <b>FLAPS</b>             |
| Set Flaps For Landing In Accordance With The Flaps Schedule   |                          |
| <b>Landing</b> .....  | <b>SET MCP</b>           |
| At 300 Feet Below The Missed Approach Altitude<br>Set The Missed Approach Altitude On The MCP<br>At Final approach Fix<br>Verify The Crossing altitude And Crosscheck Altimeters<br>Monitor The approach<br>If Suitable Visual Reference Is Established At DA (H), MDA (H) or The<br>Missed Approach Point, Disengage The Autopilot & Autothrottle<br>Maintain Glide Path To Landing  |                          |

This Procedure Is Not Authorized Using QFE

Go-Around & Missed Approach Procedure

I Included The Go-Around / Missed Approach Procedure  
Just In Case It Was Needed

TO/GA.....PRESS

Verify Rotation To Go-Around Attitude & Increased Thrust  
Verify Thrust Is Sufficient For Go-Around or Adjust As Needed

Flaps.....15

Monitor Flap Retraction

Landing Gear.....UP

Verify Positive Rate Of Climb  
Once The Gear Is Retracted, Place The Gear Lever In The Off Position

Above 400 Feet  
Verify LNAV or Select HDG SEL As Appropriate  
Verify Proper Mode Annunciation  
Verify Missed Approach Route Is Tracked

Flaps.....RETRACT

Retract Flaps According To The Flaps Schedule  
After Flap Retraction, Select LVL CHG | VNAV May Be Selected If Flaps Are Up  
Verify Climb Thrust Is Set | Verify Missed Approach Altitude Is Captured

Engine Start Switches.....AS NEEDED

After Takeoff Checklist.....COMPLETE

Landing Roll Procedure

Autopilot.....DISENGAGE

Control The Aircraft Manually

Thrust Levers.....CLOSED

Speed Brake.....UP

Without Delay, Fly The Nose Wheel Smoothly Onto The Runway  
Verify Correct Autobrake Operation

Reverse Thrust.....APPLY

Move Reverse Thrust Levers To The Interlocks And Hold Light Pressure  
When Interlocks Release, Apply Reverse Thrust As Needed

By 60 Knots, Move Reverse Thrust Levers To Reverse Idle Detent  
After Engines Are At Reverse Idle, Move Reverse Thrust Levers Full Down

Before Taxi Speed, Disarm The Autobrake | Use Manual Braking As Needed

EFB Airport Map Application.....SELECT

Do Not Use The Airport Map Application As A Primary Navigation Reference

The Airport Map Application  
Is Designed To Aid Flight Crew Positional Awareness Only

After Landing Procedure

Speed Brake.....DOWN

Autothrottle.....OFF

Flight Directors.....OFF

APU.....START

Probe Heat Switches.....OFF

Exterior Lights.....AS NEEDED

Landing Lights = OFF | Anti Collision Lights = ON

Strobe & Wing Lights = OFF | Logo Lights On At Night

Position Lights = ON | Taxi Lights = ON | Runway Turnoff Lights = ON

Engine Start Switches.....AUTO or OFF

With Automatic Ignition, Set To AUTO / Without Automatic Ignition, Set To OFF

Engine & Wing Anti-Ice.....OFF

Weather Radar.....OFF

Auto Brake Selector Switch.....OFF

Verify That The Auto Brake Disarm Light Is Illuminated

Flaps.....UP

**After Landing Procedure**

**Transponder.....AS NEEDED**

Airports Where Ground Tracking Is Not Available, Select STBY  
Airports Equipped To Track Aircraft On The Ground  
Select An Active Transponder Setting, But Not A TCAS Mode

**ETE Clock.....STOP**

**Taxi & Runway Turnoff Lights.....SET**

Turn Taxi & Runway Turnoff Lights Off Prior To Entering The Gate Area

**Shutdown Procedure**

**Parking Brake.....SET**

Verify Parking Brake Warning Light Is Illuminated

**Electrical Power.....SET**

| <u>APU Power</u>                          | <u>GRD Power</u>                          |
|---|---|
| APU Generator Bus Lights Illuminated      | Ground Power Available Lights Illuminated |
| APU Generator Bus Switches ON             | GRD Power Switch ON                       |
| Verify Source Off Lights Are Extinguished | Verify Source Off Lights Are Extinguished |

**Engine Start Levers.....CUTOFF**

**Seatbelt Sign Switch (Inoperable On BBJ).....OFF**

**Ant Collision Light Switch.....OFF**

**Fuel Pump Switches.....OFF**

Do not Use Center Fuel Tank Pumps If Flight Deck Is Unattended

**CAB/UTIL Power Switch.....AS NEEDED**

**IFE/PASS Seat Power Switch.....AS NEEDED**

**Wing Anti-Ice Switch.....OFF**

**Engine Anti-Ice Switches.....OFF**

**Probe Heat Switches.....OFF**

Confirm Probe Heat Switches Are Off

**Hydraulic Panel.....SET**

Engine Hydraulic Pump Switches: ON  
Electric Hydraulic Pump Switches: OFF

**Recirculation Fan Switches.....AS NEEDED**

**Air Conditioning Pack Switches.....AUTO**

**Isolation Valve Switch.....OPEN**

**Engine Bleed Air Switches.....ON**

**APU Bleed Air Switch.....ON**

**Exterior Lights Switches.....AS NEEDED**

**Flight Director Switches.....OFF**

**Transponder Mode Selector.....STBY**

**Weather Radar.....OFF**

**Flaps.....UP**

Confirm Flaps Are Up

**EFB Close Flight.....SELECT**

**Parking Brake.....RELEASE**

**WARNING**

Only Release Parking Brake After Chocks Are In Place

**APU Switch.....AS NEEDED**

**Secure Procedure**

**IRS Mode Selectors.....OFF**

**Emergency Exit Lights Switch (Inoperable On BBJ).....OFF**

**Window Heat Switches.....OFF**

**Air Conditioning Pack Switches.....OFF**

**EFB Power Switch.....PUSH**