



REQUIREMENTS:

- ✓ PMDG 737 NGXu host aircraft.
- ✓ FS2Crew PMDG 737 NGXu Edition. Available at: <https://www.fs2crew.com/>
- ✓ This tutorial uses **VOICE CONTROL** with **SOP SET 3**

INTRODUCTION:

SOP Set 3 is based on the same procedures used by a popular European operator. SOP 3's procedures are very different from SOP 1 and 2's. What makes SOP 3 interesting is that it demonstrates just how different each airline's procedures can be. There are, as they say, a million ways to skin a cat.

For a full list of voice commands and explanations, please consult the MAIN OPS MANUAL.

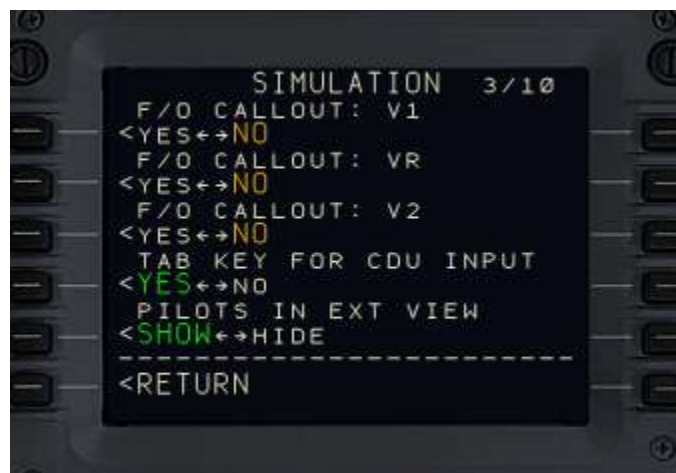
If you have any questions or problems, please consult the FS2Crew Support Forum at Avsim.com. This is complex software and we're trying to do things as realistically as possible, so don't be afraid to ask questions!

For the Flight Route, we'll leave that up to you. Pick your favorite airport and fly there!

DISCLAIMER: This tutorial is made for flight simulation purposes only and does not necessary reflect real world procedures to their fullest. FS2Crew 737 NGXu is an entertainment product. It is not meant for real-world flying or training. It is not affiliated or associated with any specific airline or company.

LET'S BEGIN:

- If you haven't already trained your voice and set your speech recognizer to **ENGLISH – US**, please do so now. Please consult the MAIN OPS MANUAL for detailed info.
- Load the PMDG 737 NGX from the Free Flight screen. The PMDG 737 should never be the default aircraft that loads or you WILL have problems. Do not use saved situation files!
- At this point, you should be sitting in the 2D cockpit and the engines should be running. If the engines are not running, you are probably using a default panel state file, and we generally don't recommend using those as they can sometimes cause the aircraft to initialize improperly.
- We need to shut off the built in F/O CALLOUTS or you will get double call outs via the **PMDG OPTIONS - SIMULATION** menu as shown below:



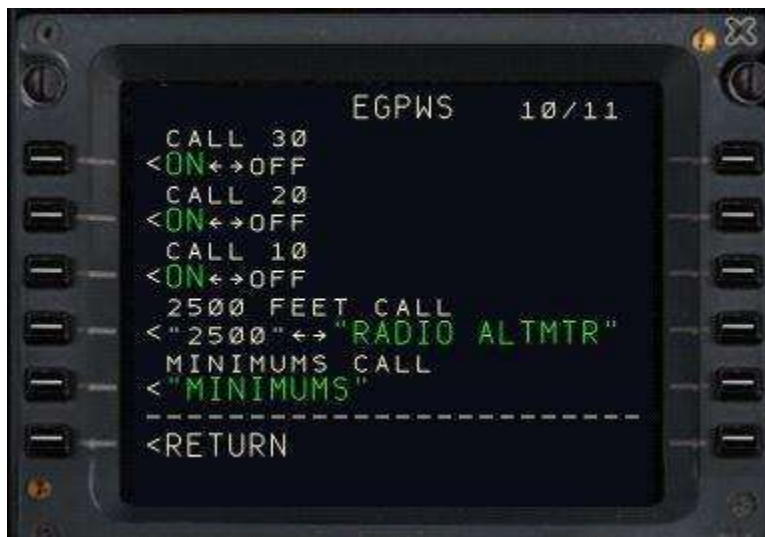
- We recommend that the F/O's altimeter and Standby altimeter syncs to the Captain's altimeter as shown below.

SYNC CAPT AND F/O EFIS TO: BARO AND MINIMUMS.

SYNC CAPT AND STBY BARO TO 'YES'.



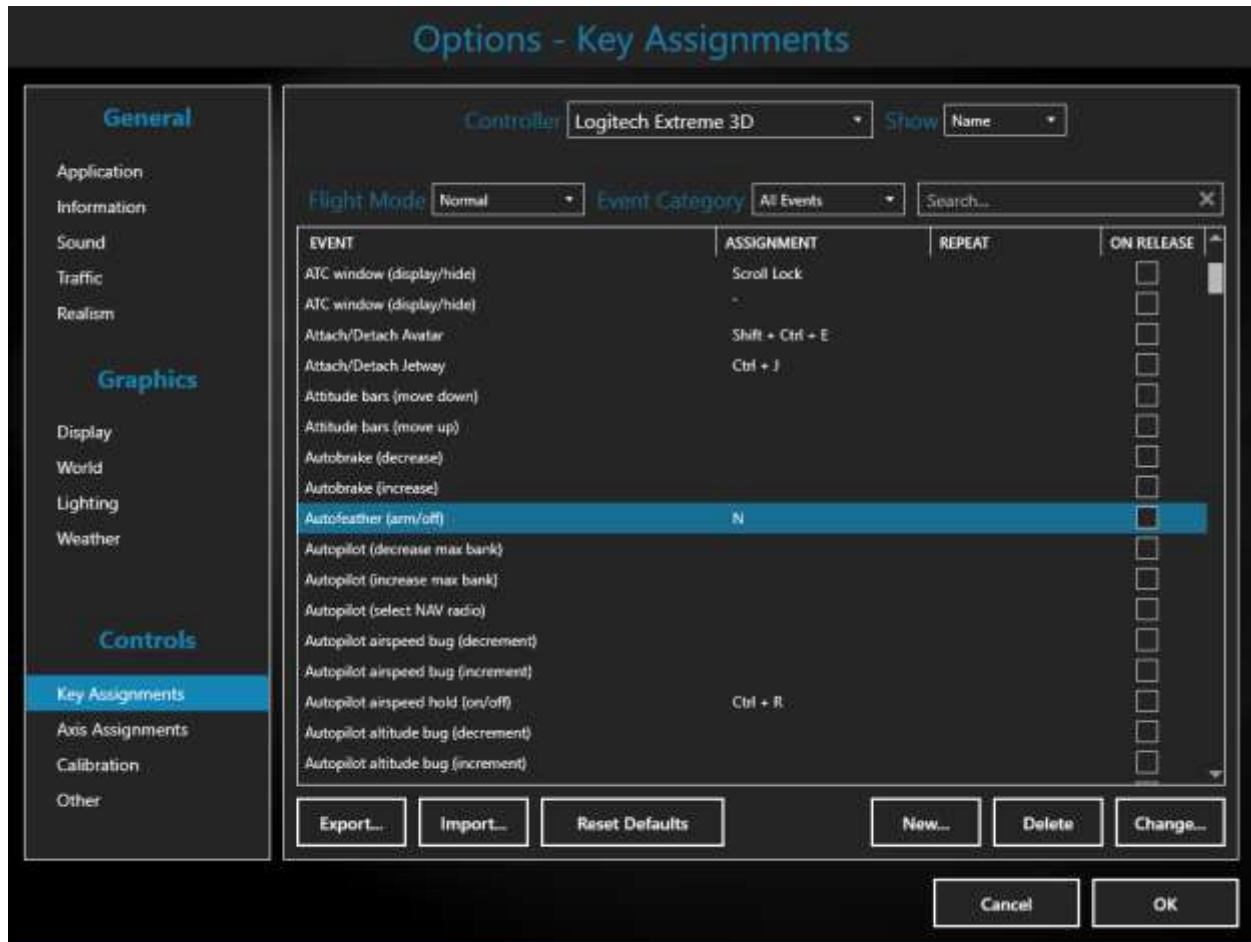
- Note: The other options, such as Service-Based failures, can be set at your discretion.
- This airline uses EGPWS auto-callouts for the “MINIMUMS” and “PLUS HUNDRED” calls during approach. Please ensure your PMDG Options are set accordingly as shown below:



- Open the PMDG’s FMC and select the stock **PMDG LONG** or **SHORT PANEL STATE** file. It’s your choice. You don’t need to do this for every flight. In fact, you can start with the engines running. But for the sake of this tutorial we’re going to start with the engines off. These two panel states are

generally the most realistic panel state files to use since airline pilots rarely receive the aircraft cold and dark and most major airports supply ground power and air.

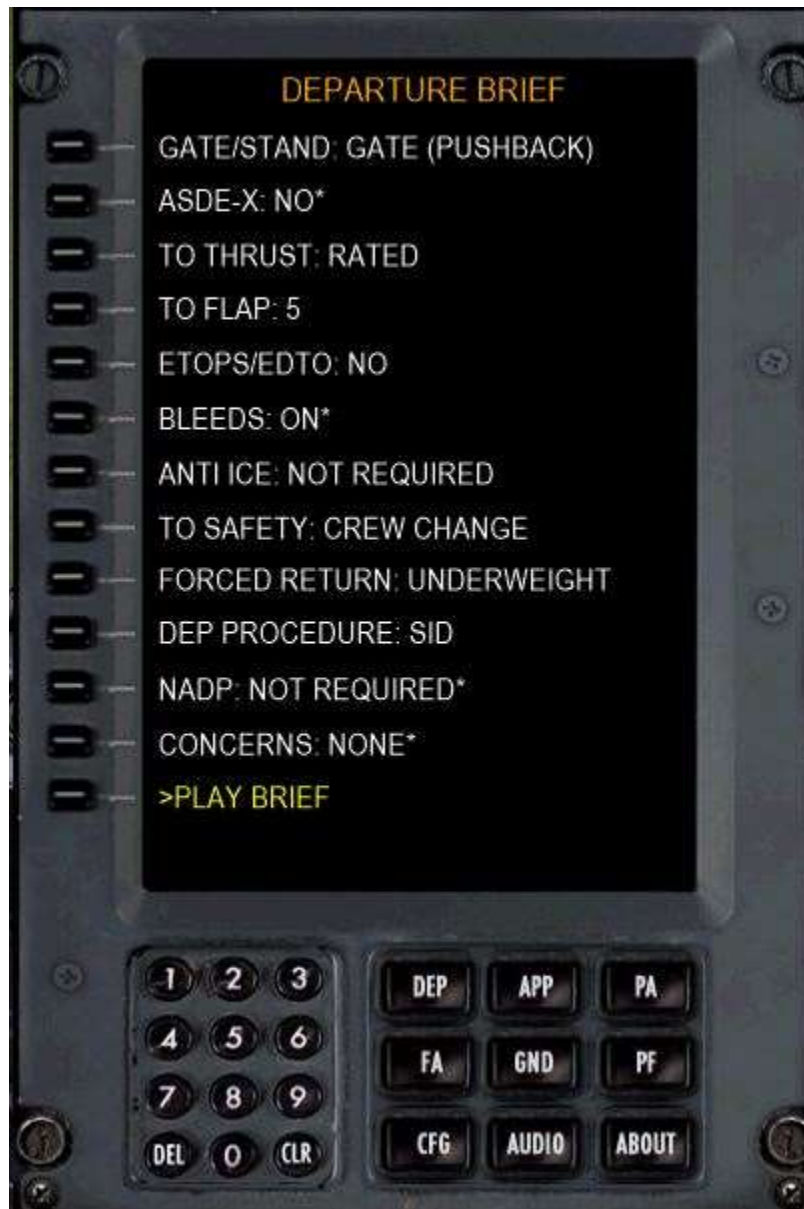
- Now we need to open the **MAIN PANEL**. There is no click spot! Press the button you assigned to open the FS2Crew MAIN PANEL (namely the one linked to **AUTOFEATHER ARM/OFF**.)
- If you haven't already assigned a button to this event, do it now, or you won't be able to open the MAIN PANEL.



- The FS2Crew MAIN PANEL should open up.
- If the Main Panel does not open, double check your keyboard assignment that you assigned to AUTOFEATHER (ARM/OFF). I personally use the “N” key on the keyboard. If the MAIN PANEL still doesn't appear, try assigning a different key. Also open the PMDG 737's panel.cfg file with Notepad. Make sure there are FS2Crew entries on it. If not, you forgot to Enable FS2Crew via the FS2Crew Configurator or you have a write permission issue.



- The PMDG 737 NGX's panel.cfg file is located here:
- Your Flightsim Folder\SimObjects\Airplanes\PMDG 737-800NGX\panel\panel.cfg
- Press the SEC button on the MAIN PANEL. A new panel should open up that looks like an FMC. This panel is called the **SECONDARY PANEL**.



- Press the CFG button on the FMC to open the CONFIG menu.
- Press LSK 1 (Left Line Select Button) to open the SETUP page.
- By default, FS2Crew is running in BUTTON CONTROL mode. We need to change that to VOICE CONTROL by pressing **LSK 1**.
- Press LSK 4 to change the SOPS to **SET 3**.



- The text “**CONFIRM SOP OVERWRITE**” will appear on the same page.



- Press LSK 14 to confirm the overwrite. The various CALLOUTS CFG options will then be updated to match SET 3's SOPs.
- Press the AUDIO button on the SECONDARY PANEL.
- Select your CREW REGION by pressing LSK 1. This setting controls the regional accent of the crew.
- If you are using a headset, select the audio device associated with your headset by pressing LSK 4 (HEADSET AUDIO DEVICE).
- Press LSK 7 to play the audio test. From your main speakers, you should hear “**Left speaker test... Right speaker test... Audio test complete**”.
- Note the button that says RESET AUDIO SYSTEM. Only press that if you seem to lose FS2Crew audio; that can happen if your audio device momentarily disconnects from the system.
- Now we need to run the Pre-Flight events. Running the Pre-Flight events is OPTIONAL, but we'll run it anyway for the sake of the tutorial.
- Press the PF button on the SECONDARY PANEL to open the **PRE FLIGHT EVENTS** page.
- Press LSK 4 to run the Preflight Events (your engines must be shutdown first).

- To close the SECONDARY PANEL, press the SEC button on the FS2Crew Main Panel, or click the right screw in the top right hand corner of the SECONDARY PANEL or press the button you assigned to toggle the SECONDARY PANEL.

SOME SIMPLE RULES AND ADVICE:

- In FS2Crew, you are the Captain and the Pilot Flying (PF). The computer is the FO and the Pilot Monitoring (PM). The PM is often written as “the FO” in the manual for the sake of keeping things simple.
- If the Autopilot is ON, the MCP (autopilot panel) falls within your area of responsibility. The FO/PM should generally never touch the MCP if the autopilot is on.
- It’s highly recommended that you leave the Green Bar on so you can see what the speech recognition system is detecting.

PRE-FLIGHT EVENTS:

NOTE: All times listed below are approximate.

+25 Minutes: Pre-Flight Events start. Jetway connects if available. Cabin and cargo doors open.

+24 Minutes: ONLY if using the COLD AND DARK panel state (the aircraft has no electrical power) the Captain starts the ELECTRICAL POWER UP AND COCKPIT SAFETY INSPECTION.

Note that there are two SETUP PROCEDURES: A TRANSIT version and a NON-TRANSIT version. The transit version would be done on the 2nd sector.

The biggest difference between this SOP and the others is, that you must do a lot of flow yourself, therefore it is important getting the habit of developing a certain flow so things don’t get messy.

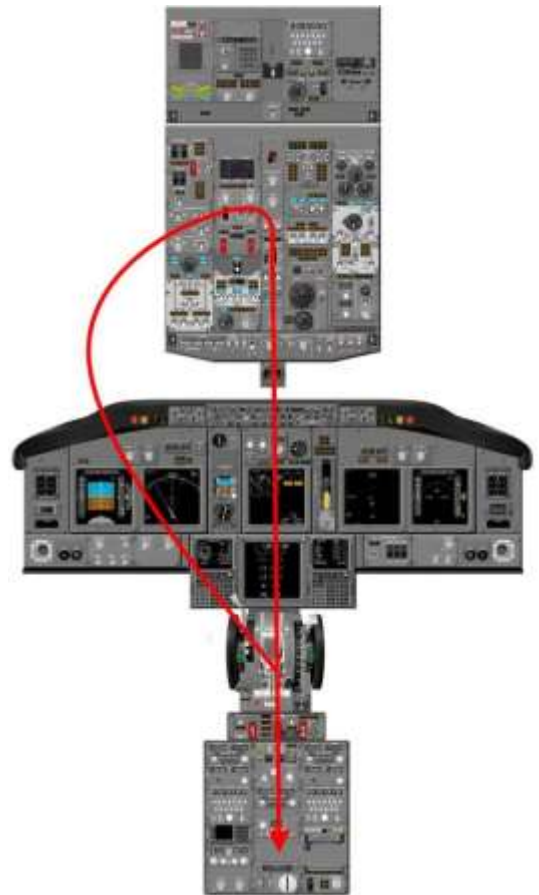
In the startup there are 5 different flows you must master to make your tight low-cost schedule:

- ✓ Electrical Power up and Safety Inspection
- ✓ Preliminary Flow
- ✓ Station Setup
- ✓ Preflight flow
- ✓ Before Taxi flow

POWER UP & SAFETY INSPECTION

-CAPTAIN

- ✚ BATTERY ON
- ✚ VERIFY ELEC HYD OFF
- ✚ VERIFY LANDING GEAR DOWN
- ✚ AC POWER ON (GPU) (IF APU TEST FIRE PANEL FIRST)
- ✚ SELECT POSITION LIGHT TO STEADY
- ✚ TEST FIRE PANEL AND EXTINGUISHER BOTTLES
- ✚ EMERGENCY EXIT LIGHTS ARMED
- ✚ TEST ATTEND BUTTON
- ✚ TEST CONFIG HORN BY MOVING THROTTLES
- ✚ TEST CARGO FIRE
- ✚ CONFIRM GEAR PINS IN PLACE



PRELIMINARY SETUP (AFT OVERHEAD)

-CAPTAIN

PRELIMINARY SETUP (AFT OVERHEAD)

- ✚ TEST FLIGHT DATA RECORDER
- ✚ TEST MACH AIRSPEED WARNING AND STALL WARNING
- ✚ CHECK FOR NO LIGHTS ON THE EEC PANEL
- ✚ CHECK OXYGEN PRESSURE 1100-1900 PSI
- ✚ CHECK INTERPHONE ON
- ✚ IRS MODE SELECTORS TO NAV



From there you move down to your side of the cockpit, where you can do your STATION SETUP. Remember though you still need the "ATIS" and the "IRS POSITION".

STATION SETUP

-CAPTAIN AND FO

STATION SETUP (BOTH)

- ✚ TEST OXYGEN (PRESSURE 1150 TO 1800)
- ✚ CONFIRM UTC TIME ON YOUR CLOCK
- ✚ SET EFIS PANEL WITH QNH, MFRA (MOSTLY 1000AGL)
- ✚ PERFORM LIGHT TEST (FIRST FLIGHT OF DAY – CAPTAIN/PF ONLY)
- ✚ CHECK SCREENS ARE CORRECT AND LIGHTS ARE AS REQUIRED
- ✚ GPWS TEST (FO ONLY- IRS MUST BE ALIGNED)

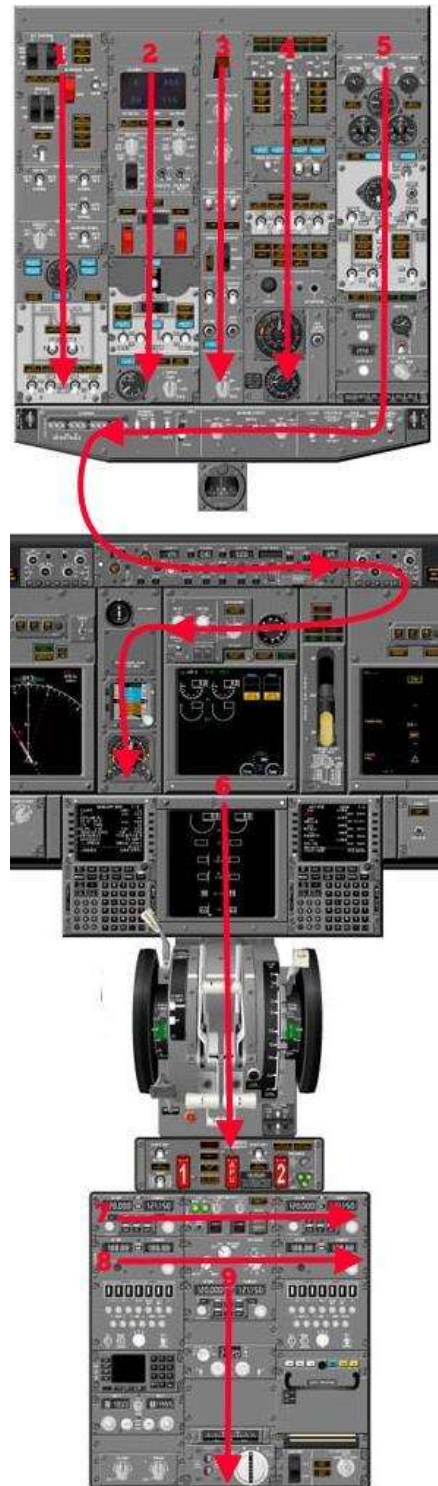
FO starts the exterior inspection after setting up his station, and turns on the wheel well light.

+22 Minutes: Captain performs the CDU pre-flight using the estimated ZFW. After CDU pre-flight he goes to the Pre-flight flow.

PRE-FLIGHT FLOW

-CAPTAIN

- ✚ YAW DAMPER ON
- ✚ NAV TRANSFER AND DISPLAY SWITCHES IN NORMAL AND AUTO
- ✚ CHECK CROSSFEED (FIRST FLIGHT OF THE DAY)
- ✚ FUEL PUMPS ON
- ✚ CABIN UTILITY/IFE ON
- ✚ FASTEN BELTS TO ON (IF FUEL IS COMPLETED)
- ✚ VERIFY CHIME SWITCH IN OFF
- ✚ WINDOW HEAT ON
- ✚ ELECTRIC HYDRAULIC PUMPS ON
- ✚ CHECK PRESS DIALS ON 0,0 AND AIRPORT ELEVATION
- ✚ TRIM AIR ON
- ✚ SETS TEMPERATURE SELECTORS SO THEY POINT "A" "U" "T"
- ✚ PACKS AUTO, ISO VALVE OPEN, BLEEDS ON, APU BLEED OFF
- ✚ SET FLT ALT, AND LAND ALT
- ✚ CHECK MODE SELECTOR IN AUTO
- ✚ CHECK IGNITION LEFT OR RIGHT*
- ✚ VERIFY STEADY & LOGO LIGHTS ON IF DARK
- ✚ TURN ON FLIGHT DIRECTORS
- ✚ SET MCP (COURSES FOR DEP, V2, RWY HDG, CLEARED ALT)
- ✚ VERIFY BANK ANGLE 25
- ✚ AUTOBRAKE RTO
- ✚ RESET FUEL FLOW
- ✚ SET STANDBY INSTRUMENTS
- ✚ CHECK ENGINE INDICATIONS, AND THEN SELECT "SYS PAGE"
- ✚ SPEEDBRAKE DOWN**
- ✚ CHECK STAB TRIM CUTOUT SWITCHES
- ✚ SET PARKING BRAKE ON (IF NOT ALREADY ON)
- ✚ SET THE RADIOS
- ✚ CONFIRM "ATC" AND "ALT" ON TRANSPONDER TO "1"
- ✚ CHECK RUDDER AND AILERON TRIM



***PILOTS NOTE: Many airlines selects R ignition at the beginning of the day, or when at a maintenance base. The reason for this is, that R ignition is driven by the Standby Power system, and will therefore aid in discovering a potential fault in the Standby system. A fault like this is best to detect at the first flight or a place where it can be fixed.**

NOTE: Before checking speedbrake lever down, advance the thrust levers to above 40%. If Speedbrake extended, they will automatically go to the down position, and you will also check the CONFIG once more.

+20 Minutes: FA asks if she can start the boarding. Respond: **“YES/ GO FOR IT/ OKAY”**.

+17 Minutes: FO returns from walkaround and turns off wheel well light.

+16 Minutes: If “FUEL UPLOADED REQUIRED” selected to “YES” on the FS2CREW SETUP page, the ground crew will hand the FO the fuel receipt.

+15 Minutes: Obtain the airways clearance. Normally the FO would do this, but that’s not possible in Flight Simulator.

+9 Minutes: Run the Departure Brief. There are two options: You can open the FS2Crew SECONDARY PANEL and press DEP to and play the Departure Brief there. Or you can speak: **“ARE YOU READY FOR THE DEPARTURE BRIEF?”** Close the brief by asking: **“ANY QUESTIONS?”**

+ 8 Minutes: If this is a non-transit leg (for example, it’s the first flight of the day), speak **“SAFETY INSPECTION CHECKLIST”,** or **“SAFETY INSPECTION CHECKLIST AND BEFORE START CHECKLIST TO THE LINE (PLEASE)”**

SAFETY INSPECTION CHECKLIST (PLEASE)

SURFACES AND CHOCKS (C)
MAINTENANCE STATUS (C)
BATTERY (C)
ELECTRIC HYDRAULIC PUMPS (C)
LANDING GEAR LEVER (C)
SHIPS LIBRARY (C)

[FIRST FLIGHT OF DAY ONLY]

CHECKED
CHECKED
ON
ON / OFF
DOWN
CHECKED

NOTE: At this airline, they always call for the SAFETY INSPECTION CHECKLIST and the BEFORE START CHECKLIST at the same time. If you wish to do that, speak: **“SAFETY INSPECTION CHECKLIST AND BEFORE START CHECKLIST TO THE LINE (PLEASE)”** in a single phrase.

Note: * symbol means the item is done on a Transit Checklist only.

Note: If this is a “TRANSIT” leg (not the first flight of the day), speak: **“TRANSIT BEFORE START CHECKLIST TO THE LINE (PLEASE)”**.

BEFORE START CHECKLIST TO THE LINE (PLEASE) / TRANSIT BEFORE START CHECKLIST TO THE LINE (PLEASE)

*PHONES (B)	OFF
*IRS MODE SELECTORS (C)	NAV
*GEAR PINS (C)	REMOVED
LIGHT TEST (C)	CHECKED
*OXYGEN (B)	TESTED 100 PERCENT
*YAW DAMPER	ON
NAV TRANSFER & DISPLAY SWITCHES (C)	NORMAL AUTO
*FUEL (C)	__ REQ __ ONBOARD, PUMPS ON
CABIN / UTIL/ IFE (C)	ON
EMERGENCY EXIT LIGHTS (C)	ARMED
*PASSENGERS SIGNS (C)	ON
*WINDOW HEAT (C)	ON
*HYDRAULICS (C)	NORMAL
*AIR COND & PRESS (C)	PACKS __ BLEEDS ON SET
*PRESSURIZATION MODE SEL (C)	AUTO
*INSTRUMENTS (C)	CROSSCHECK
*AUTOBRAKE (C)	RTO
*SPEEDBRAKE LEVER (C)	DOWN DETENT
*PARKING BRAKE (C)	SET
STAB TRIM CUTOUT SWITCHES (C)	NORMAL
WHEEL WELL FIRE WARNING (C)	CHECKED
*RADIOS, RADAR & XPONDER (C)	SET AND STANDBY
*RUDDER & AILERON TRIM (C)	FREE AND ZERO
*TAKEOFF BRIEFING (C)	DISCUSSED
*PA (C)	COMPLETE
*FMC/CDU (C)	SET
*N1 & IAS BUGS (C)	AUTO __/__, SET
*STAB TRIM (C)	__ UNITS SET
*EFB (B)	AIRPLANE MODE AND STOWED
*FLT DECK WINDOWS & COCKPIT DOOR (B)	LOCKED
*DOORS (C)	CLOSED

Full phrases for AIR COND & PRESS challenge: **“PACKS AUTO BLEEDS ON SET/ PACKS OFF BLEEDS ON SET”**.

Speak: “**COMPLETE THE CHECKLIST**” if the FO holds at PA it is because the CDU is not PREFLIGHT COMPLETE. Do this after the CDU is Preflight Complete.

***PILOTS NOTE: The reason for this is that in the real world you don’t have the actual ZFW until the loadsheet arrives and you can’t do your performance until then.**

If the FO holds the checklist at **FLIGHT DECK WINDOWS AND COCKPIT DOOR** it is because the cockpit door is still open, the FO will automatically resume the checklist after the cockpit door is closed by the FA who tells you they are ready to go in the back, as well as all exterior doors.

Notes:

* Symbol denotes item to be read on Transit Checklist.

When answering “**NORMAL**” to Hydraulics you check the Pump position and SYS page for the Pressure and quantity. After answering, switch the lower screen back to Engine Indications, so it is ready for Engine Start.

When responding to “N1 & IAS Bugs”, you check:

- ✓ N1 selector in AUTO
- ✓ What kind of thrust, Rated or Derated, Full or Reduced
- ✓ V speeds
- ✓ V2 set on the MCP

The FO will ask you if you want to start the **APU** (assuming its not running) after the FLIGHT DECK WINDOWS AND DOORS challenge. Speak: “**YES PLEASE**” if you want him to turn on the APU.

+7 Minutes: Loadsheet arrives. If loadsheet arrives in person and not via ACARS (as defined in the Config Options), respond: “**THANK YOU / OKAY THANKS / THANKS**”.

+3 Minutes: Cargo door and aft cabin door close.

+1 Minutes: Boarding is complete. The FA will ask if she is clear to close the cabin door. Respond: “**THANKS IT WILL BE A SHORT TAXI / THANKS/ THANK YOU / THANKS IT WILL BE A LONG TAXI / CLEARED TO CLOSE SHORT TAXI / CLEARED TO CLOSE LONG TAXI**”. If the Air Start Cart is not connected and the APU is on the busses, the wheel chocks will be automatically removed. The Air Conditioning Cart will also be removed if it is connected.

+ 0 Minutes: When cleared for engine start by ATC run the Before Start Procedure.

BEFORE START PROCEDURE

-CAPTAIN

- ✚ *HYDRAULIC A PUMPS OFF (IF PUSHBACK REQUIRED)*
- ✚ *CHECK DOORS*
- ✚ *PACKS OFF*
- ✚ *ISOLATION VALVE OPEN*
- ✚ *APU BLEED ON IF APU RUNNING*
- ✚ *ANTI COLLISION LIGHT ON*
- ✚ *VERIFY PARKING BRAKE*
- ✚ *SELECT TRANSPONDER "ALT OFF" or "STANDBY"*



+ 0 Minutes: After you have completed the Before Start Procedure, speak “**BELOW THE LINE**” to complete the Before Start Checklist.

BELOW THE LINE / BEFORE START CHECKLIST BELOW THE LINE (PLEASE)

A PUMPS (C)	ON / OFF
AIR CONDITIONING PACKS (C)	OFF
ANTI COLLISION LIGHTS (C)	ON
PARKING BRAKE (C)	SET
TRANSPONDER (C)	ALT OFF / STANDBY

PUSHBACK AND ENGINE START:

- For pushback, use the built in PMDG pushback until Ultimate Ground Crew X is released.
- You may need to manually remove the chocks via the PMDG FMC.
- At the airline associated with SOP Set 3, the Captain starts the engines, not the FO.
- Speak “**STARTING ENGINE NUMBER ____**”.
- Captain set the Start Switch for the associated engine to GRD. FO starts timing.
- Captain: Announce “**N2**”.
- FO: Announce “**OIL PRESSURE**”.
- Captain: Announce “**N1**”
- Captain: Set Fuel Lever to Idle Detent when N2 is around 25%.
- FO: Announce “**STARTER CUTOUT**”.
- Captain: Announce: “**MONITOR NUMBER ____**”.
- FO: Announce “**NUMBER ____ STABLE**”.
- Repeat this procedure when starting engine one.
- If it’s a hot day and you delayed the APU start (if using the APU at all), command the FO to isolate a pack after engine two stabilizes. This will help get cool air to the passengers since the engines can cool the plane faster than APU bleed air. Speak: “**ISOLATE A PACK**”. Alternatively you can do it yourself.

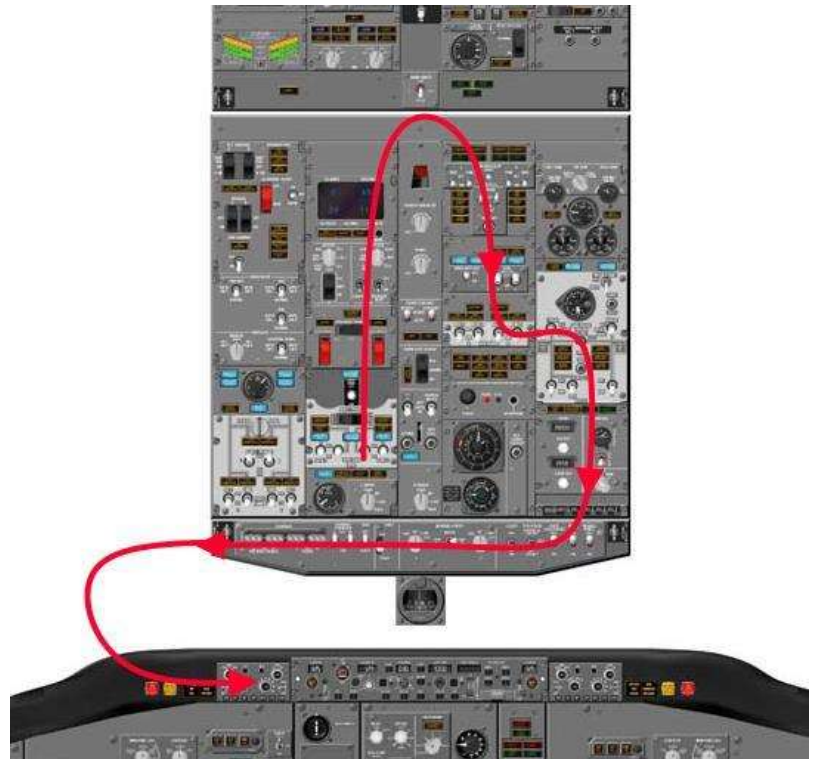
BEFORE TAXI PROCEDURE:

- After engine start and with the pin in sight, the Captain should run his BEFORE TAXI PROCEDURE.

BEFORE TAXI PROCEDURE

-CAPTAIN

- ✚ GENERATORS ON
- ✚ PROBE HEAT ON
- ✚ ANTI ICE AS REQUIRED
- ✚ A PUMPS ON
- ✚ PACKS AUTO
- ✚ ISOLATION VALVE AUTO
- ✚ APU BLEED OFF
- ✚ START SWITCHES CONT
- ✚ APU OFF
- ✚ RECALL
- ✚ CHECK FLIGHT CONTROLS (SEE NOTES)
- ✚ SELECT FLAPS
- ✚ CHECK ENGINE INDICATIONS
- ✚ BLANK LOWER DU



- It's time to run the flight controls check. Speak: **"CONTROL CHECK"** or **"FLIGHT CONTROL CHECK."**
 - ✓ Move the control column fully left and speak **"FULL LEFT"**.
 - ✓ Move the control column fully right and speak **"FULL RIGHT"**.
 - ✓ Center the control column and speak **"CENTRE"**. The FO will respond **"CHECKED"**.
 - ✓ Do the same thing with the elevators and rudder. Full left, full right and center. The FO only responds **"CHECKED"** to the **"CENTER"** announcement.
- Now it's time to run the Before Taxi Checklist. There are two versions of the checklist: One for a Bleeds On Takeoff (the most common situation) and one for a Bleeds Off Takeoff. Speak: **"BEFORE TAXI CHECKLIST (PLEASE)"**, or, if appropriate, **"BEFORE TAXI NO ENGINE BLEED CHECKLIST (PLEASE)"**.

BLEEDS ON VERSION (NORMAL):

BEFORE TAXI CHECKLIST (PLEASE)

GENERATORS (C)	ON
PROBE HEAT (C)	ON
ANTI-ICE (C)	ON/ OFF
A PUMPS (C)	ON
AIR COND (C)	PACKS AUTO BLEEDS ON
ISOLATION VALVE (C)	AUTO
START SWITCHES (C)	CONTINUOUS
APU (C)	OFF
RECALL (C)	CHECKED
FLIGHT CONTROLS (C)	CHECKED
FLAPS (C)	__REQUIRED __SELECTED, GREEN LIGHT
STAB TRIM (C)	__REQUIRED __UNITS SET
START LEVERS (C)	IDLE DETENT

- For the anti-ice challenge, you can also say: “ENGINE ANTI ICE IS ON/ ENGINE AND WING ANTI ICE ARE ON”.
- If freezing conditions are present and you wish to taxi with the flap up and perform a flaps movement check, speak “CHECK UP 40 UP” for the Flaps Challenge.
- “__UNITS SET” is the trigger for the STAB TRIM challenge. Ensure it is said clearly and distinctly from units required. Example: “5 POINT 4 UNITS SET”.

PILOTS NOTE: when checking the Flaps you are checking 3 things:

- ✓ ***The position required in the FMC - Takeoff Page.***
 - ✓ ***That the Flaps selector is on the correct detent.***
 - ✓ ***That the small “LE Flaps extended” light under the flap dial is green.***
- It helps to point at the three different things, even in the sim, and the FO is more likely to understand you. The same with the “STAB TRIM”. Point at FMC and point at the wheel.

BLEEDS OFF VERSION:

- **NOTE:** FO – Read Challenge & Respond. CAPT – Action and repeat Response.
- **NOTE:** If WAI is required for taxi, complete the normal Before Taxi Procedure but leave the APU running. Run the BEFORE TAXI BLEEDS OFF CHECKLIST just prior to takeoff to configure for a bleeds of takeoff.

BEFORE TAXI NO ENGINE BLEED CHECKLIST (PLEASE)

GENERATORS	ON
PROBE HEAT	ON
ENGINE ANTI-ICE	OFF/ ENGINE ANTI ICE IS ON/ ENGINE AND WING ANTI ICE ARE OFF
A PUMPS	ON
RIGHT PACK SWITCH	AUTO
ISOLATION VALVE	CLOSED
LEFT PACK SWITCH	AUTO
ENGINE NUMBER 1 BLEED AIR SWITCH	OFF
APU BLEED AIR SWITCH	ON
ENGINE NUMBER 2 BLEED AIR SWITCH	OFF
START SWITCHES	CONTINUOUS
APU	ON
RECALL	CHECKED
FLIGHT CONTROLS	CHECKED
FLAPS	__REQUIRED __SELECTED, GREEN LIGHT
STAB TRIM	__UNITS REQUIRED __UNITS SET
START LEVERS	IDLE DETENT

NOTE: “UNITS SET” is the trigger for the Stabilizer Trim challenge. Ensure it is said clearly and distinctly from “Units required”. Example: “5 UNITS SET”.

TAXI AND CONFIG CHECK:

- Speak “CLEAR LEFT / CLEAR ON THE LEFT”.
- The Captain turns on the TAXI LIGHT and RUNWAY TURNOFF LIGHTS, not the FO.
- When commencing the taxi and the lights have been turned on, the Captain performs the CONFIG Test. Bring the throttles up to a minimum of 70% N1 and then immediately back to idle. If no Takeoff Config warning is heard, the CONFIG test was a success.

Pilots Note: Be very fast when doing the CONFIG Test. In the real aircraft it takes a long time for the engines to spool up, but not in the NGX, so be fast to go back to idle.

- When crossing a runway you can speak: “CONFIRM CLEARED TO CROSS RUNWAY ___”.

Pilots Note: It is good airmanship to turn on the strobes when crossing a runway. This is the FO’s area of responsibility, therefore speak “SET STROBES ON” if you need to cross a runway.

APPROACHING RUNWAY:

- Run the BEFORE TAKEOFF CHECKLIST at some point during the taxi. Speak: “BEFORE TAKEOFF CHECKLIST TO THE LINE (PLEASE)”.

BEFORE TAKE OFF CHECKLIST TO THE LINE (PLEASE)

CONFIG (C)	CHECKED
FLAPS (C)	___ GREEN LIGHT
STAB TRIM (C)	___ UNITS SET
TAKEOFF BRIEFING (C)	REVIEWED
CABIN	SECURED

- Note: The Stabilizer trim will only accept a trim setting to one decimal place. So 5.0 Units will work, but not 5.55 units. You are supposed to be looking at the trim handle, not the CDU for the trim setting.

- When reviewing the TAKEOFF BRIEFING, rebrief some of the most important things before departure. These can include
 - ✓ Packs and Bleed configuration o NADP 1 or 2
 - ✓ Flap setting o V-speeds
 - ✓ Initial routing
 - ✓ Initial climb clearance
 - ✓ Adverse weather or other threats

- For the Cabin challenge, the FO will press the ATTEND button on the overhead. A few seconds later the FA will double chime the cockpit indicating that the cabin is secure. The FO will then set the NO SMOKING SIGN to ON and read the CABIN challenge, and you should reply “SECURED”.

RUNWAY ENTRY PROCEDURE

- When cleared to enter the runway (or when crossing a runway), speak: “CONFIRM CLEARED TO ENTER RUNWAY ___”.
- Speak “CLEAR LEFT”, FO will respond with “CLEAR RIGHT”.
- Speak: “BELOW THE LINE”. That’s the trigger to perform the RUNWAY ENTRY PROCEDURE.

RUNWAY ENTRY PROCEDURE

-CAPTAIN

- ✚ FIXED LANDING LIGHTS ON
- ✚ TAXI LIGHT OFF
- ✚ RETRACTS ON WHEN CLEARED FOR TAKEOFF
- ✚ WX RADAR ON

-FIRST OFFICER

- ✚ PA: CABIN CREW SEATS FOR DEPARTURE
- ✚ STROBES ON
- ✚ ARM AUTOTHROTTLE
- ✚ SELECT LNAV IF REQUIRED
- ✚ TRANSPONDER TARA

BELOW THE LINE (PLEASE)

MCP (C)

SET

TRANSPONDER (C)

T A R A

LANDING AND STROBES (C)

ON

RETRACTS

ON

TAKEOFF PROCEDURE

- Speak “**___ / ___ TIMING**” (ND TRACK AND RUNWAY TRACK, i.e., “**025 025 TIMING**”).
- Both crew members press ET on their Chronos.
- This airline does not generally make FMA callouts, so no need to make them.
- Select min 40% N1
- FO calls “**STABILIZED**”.
- Press TOGA and speak: “**SET TAKEOFF THRUST**”.
- FO: “**TAKEOFF THRUST SET, INDICATIONS NORMAL**”.
- Speak “**CHECKED**” when the FO calls “**80 KNOTS**”.
- When the FO calls “**ROTATE**”, pitch the nose up.
- Speak: “**GEAR UP**” when a positive rate of climb is established, even before the FO speaks “**POSITIVE RATE**”. (Note: You read that right, it’s the way this airline does it).
- The FO will not speak ‘Gear up’ because it’s Boeing practice not to say anything between V1 and 400 feet except for ‘Positive Rate’ and ‘Rotate’, even if you have a failure. The FO will turn off the Retractable Landing Lights.

CLIMB:

- At 1000 feet AAL or 3000 AAL depending on your NADP, speak: “**BUG UP**”. Remember, if the autopilot is on, you manually set the bug up speed, not the FO, but you should still announce what you’re doing.
- Retract the flaps on schedule using the following commands: “**FLAPS 1**”, “**FLAPS UP / FLAPS ZERO**”.
- After the FO calls “**FLAPS UP NO LIGHTS**” and when cleared to a Flight Level, press the **STD** button on the Capt’s EFIS panel and speak: “SET STANDARD. PASSING XXX **CLIMBING FLIGHT LEVEL XXX SET**”. Note: The key phrase is “**FLIGHT LEVEL XXX SET**”.
- The FO does not say anything in response, unless he needs to complete the AFTER TAKEOFF checklist.
- Call for the After Takeoff Checklist.
- The FO will start his AFTER TAKEOFF PROCEDURE right after you call for the AFTER TAKEOFF CHECKLIST.
- There are two versions of the AFTER TAKEOFF CHECKLIST: a normal version and a BLEEDS OFF version.

BLEEDS ON VERSION (NORMAL):

AFTER TAKEOFF CHECKLIST (PLEASE)

AIR CONDITIONING AND PRESS (F)	SET
AUTOBRAKE (F – SILENT)	OFF
START SWITCHES (F - SILENT)	OFF (UNLESS ANTI ICE ON)
FLAPS (F - SILENT)	UP NO LIGHTS
LANDING GEAR (F - SILENT)	UP AND OFF
ALTIMETERS (C)	<u>__SET</u>

Note: For the ALTIMETERS challenge, the trigger phrase is: “PASSING XXXX, **CLIMBING FLIGHT LEVEL XXXX SET**”, where XXXX is the altitude set in the MCP. You can also say, for example: “**CLIMBING 9000 SET**”. If you get stuck, just say “**SET AND CHECKED**”.

If you have not yet been cleared to a Flight Level by ATC (and accordingly your MCP Altitude setting is below the Transition Altitude as entered in the FMC), the FO will say “**HOLDING AT ALTIMETERS**”. He will resume the “Altimeters” challenge when you press STD on your EFIS panel. You would STD on your EFIS panel after being cleared above the Transition Altitude by ATC. You would then speak: “**CLIMBING FLIGHT LEVEL XXX SET**”. The active FS2Crew Mode will then change to DESCENT.

In a go-around situation, you may wish to say "MAINTAINING XXX SET" if you will not be cleared above the Transition Altitude by ATC.

BLEEDS OFF VERSION:

NOTE: FO – Read Challenge & Respond, then Action and Repeat Response.

NOTE: 'BLEEDS OFF' must be selected on the DEPARTURE BRIEF page.

NOTE: If the FO holds the checklist at ALTIMETERS, use the same procedure described above in the Bleeds On version of the After Takeoff Checklist.

AFTER TAKEOFF NO ENGINE BLEED CHECKLIST (PLEASE)

ENGINE NUMBER 2 BLEED AIR SWITCH	ON
APU BLEED AIR SWITCH	OFF
ENGINE NUMBER 1 BLEED AIR SWITCH	ON
ISOLATION VALVE SWITCH	AUTO
APU	OFF
AIR COND. AND PRESS	SET
START SWITCHES	—
LANDING GEAR	UP AND OFF
AUTOBRAKE	OFF
FLAPS	UP, NO LIGHTS
ALTIMETERS	SET

- In real-life, the PF would usually turn on the autopilot himself, but if you want the PM to turn on the autopilot you may use this voice command: "SELECT AUTOPILOT ON (PLEASE) / SELECT COMMAND A".
- If VNAV was not armed on the ground, engage VNAV when desired. If the autopilot is on, press VNAV on the MCP panel. If the autopilot is off, speak: "ENGAGE VNAV/ SELECT VNAV".
- The FO will ask you if you want to release the cabin crew at the end of the AFTER TAKEOFF CHECKLIST. You may say "NO" if it's too bumpy, otherwise speak "YES PLEASE".
- If you want full climb thrust in the climb, speak: "SET FULL CLIMB THRUST".

AT 10000 FEET:

- At 10,000 feet, the FO will announce: “**ALTIMETERS**”.
- Speak: “PASSING 10,000 / FLIGHT LEVEL 100 CLIMBING LEVEL ____, **TEN CHECKS**”.
- The trigger phrase is “**TEN CHECKS**” so ensure it’s said clearly and distinctly. Note: For the Ten Checks call to work, the FO must have called “**ALTIMETERS**” and the aircraft must be below 13,000 feet.
- During the Ten Checks, the FO will ask you if you want to set the Seatbelts signs to Auto, thereby releasing the cabin so the passengers can leave their seats. Speak “**YES PLEASE**” or “**NO**” if you don’t want to release the cabin.
- Passing FL300, set the bank angle selector to 10 degrees.
- When cleared to the final cruise level and the cruise altitude is set in the MCP, the Captain speaks:

CAPT: “FLIGHT LEVEL 3 3 0 SET”.

FO: “FLIGHT LEVEL 3 3 0 CHECKED”

CAPT: “FLIGHT LEVEL 3 3 0 SET THREE TIMES” (Three Times are: Overhead Pressure Panel, MCP and FMC Cruise Page)

FO: “CHECKED”

PROCEDURE FOR FMC DIRECT:

- Captain: Points on the top of the FMC Legs page and says: “**EXECUTE**”.
- FO executes the FMC (Captain’s FMC) and calls: “**LNAV AVAILABLE**”.
- Captain (Check you have LNAV in the FMA): “**LNAV**”.
- FO: **CHECKED.**

CRUISE:







- If you wish to communicate with the FA, press the **CALL ATTD** button on the overhead panel or open the FA PAGE in the SECONDARY PANEL.
- In cruise, there is not much to do other than monitor the instruments.
- Approximately 150 miles back of the Top of Descent point you need to start setting up for the descent.
- VREF doesn't account for a change in landing weight, so adjust the landing weight to below the current weight listed on the APP REF page. For example, if the current fuel is 4.2 and the landing fuel is 3.2, adjust the landing weight to 1.0 tons below the current weight. This is very important to do at max landing weight.

THE APPROACH BRIEF:

- Before running the approach brief, we should pass control to the Pilot Monitoring. Speak: **"YOU HAVE CONTROL"**.
- Open the SECONDARY PANEL.
- Press APP to open the Approach Brief Page.
- Make your desired selections by pressing the Left Line Select buttons on the Approach Brief Page.
- You need to manually enter altitudes for the Decision Altitude and Final Approach Fix. **DO NOT FORGET TO ENTER THOSE VALUES!**
- Enter the desired value in the scratch pad, then press the left LSK button associated with the field you wish to update.
- Play the brief by pressing the PLAY BRIEF button is optional.
- As an option, you can speak: **"ARE YOU READY FOR THE APPROACH BRIEF?"** You must then close the brief by speaking: **"ANY QUESTIONS"**.
- When the brief is complete, re-take control of the aircraft by speaking: **"I HAVE CONTROL"**.

DESCENT PROCEDURE

-CAPTAIN (USUALLY PERFORMED DURING THE APPROACH BRIEF ITSELF)

-  SET UP FMC
-  SET UP RADIOS, AND COURSES
-  SELECT VREF
-  SET DA/DH SELECTOR ON OWN AND
-  FO'S EFIS PANEL
-  SET AUTOBRAKE

DESCENT CHECKLIST

- The Descent checklist should be completed before the airplane descends below the cruise altitude for arrival.
- Speak: “DESCENT CHECKLIST (PLEASE)”.

DESCENT CHECKLIST (PLEASE)

PRESSURIZATION (C)
ANTI ICE (C)
APPROACH BRIEF AND FUEL (C)
IAS AND ALT BUGS (C)

LAND ALT ___ FEET
ON / OFF
DISCUSSED
CHECKED AND SET

- Passing FL300, set bank angle selector to 25 degrees.
- Passing 15,000 feet, speak: “SET SEAT BELT SIGNS ON”.
- Passing 10,000 feet the FO will call: “ALTIMETERS”. Speak: “FLIGHT LEVEL 100/ 10,000, DESCENDING FLIGHT LEVEL ___ / ALTITUDE ___, TEN CHECKS”.
- The Trigger Phrase is: “TEN CHECKS”. Note: For the Ten Checks call to work, the FO must have called “ALTIMETERS” and the aircraft must be above 7,000 feet, but below 13000 feet. Approximately 3 minutes later after the ten checks have been completed, the cabin two tones comes in the cockpit, which symbolize that the cabin is secure, and the FO selects the NO SMOKING (chime) switch to ON.

WHEN CLEARED TO AN ALTITUDE:

- When cleared to an altitude, speak: “SET QNH” or “SET ALTIMETER”.
- The full real-life phrase is: “SET QNH___ PASSING___ DESCENDING___ NO FLAGS, STANDBY ALTIMETER SET”, but that phrase is too complex for voice recognition. The FO does not say anything in response.
- Note: There is NO response from the PM for this command.
- The Captain then checks the ILS Frequencies, Idents, FMC, Standby instruments, Courses and then calls for the APPROACH CHECKLIST.

APPROACH:

- After passing the Transition Level, Speak: “APPROACH CHECKLIST (PLEASE)”.
- The FO will automatically set the VSD on his side if it is not already on. (NOTE: For this to happen, the VSD Option must be enabled in the FS2Crew CONFIG MISC options. It is off by default).

APPROACH CHECKLIST (PLEASE)

ALTIMETERS AND INSTRUMENTS (C)

APPROACH AIDS (C)

SET AND CROSS CHECKED

CHECKED AND SET

SHOOTING THE APPROACH:

- Use HDG SEL or LNAV to intercept the final approach course. If using LNAV, ensure the localizer is captured as it might parallel the approach course.
- Arm APP Mode. If dual channel approach desired, arm second autopilot.
- Remember when the autopilot is on, only you should touch the autopilot panel, not the FO.
- The FO will call “**LOCALIZER CAPTURE**”. Note: Due to SDK limits, this call won’t always be perfect.
- Set the runway heading and speak: “**RUNWAY HEADING ___**”
- The FO will call “**GLIDESLOPE CAPTURE**”. Note: Due to SDK limits, this call won’t always be perfect.
- Immediately after the Glide Slope Capture call, set and announce the Missed Approach Altitude: “**ALTITUDE XXX**”.
- At 2500 feet after the RADIO ALTIMETER call, speak: “**TERRAIN NOTED**”.
- Speak: “**FLAPS 1**” (Special Tip: If the autopilot off, speak: “**FLAPS 1 MATCH SPEED**”. The FO will set Flaps 1 speed for you. You can use this same syntax for the subsequent flap calls as well.
- Speak: “**FLAPS 5**”
- The FO will make a PA instructing the FA to be seated.
- When passing the Outer Marker or glideslope check, speak: “**___ FEET, NO FLAGS**”.
- SPEAK: “**GEAR DOWN FLAPS 15 LANDING CHECKLIST TO FLAPS**” and set the speed brake lever to ARM. If the autopilot is off, you could say: “**GEAR DOWN FLAPS FIFTEEN MATCH SPEED LANDING CHECKLIST TO FLAPS**”.
- The FO will warn you if you the speedbrakes are still up with Flaps 15 set.

GEAR DOWN FLAPS 15 LANDING CHECKLIST TO FLAPS

ENGINE START SWITCHES (C)
RECALL (C)
SPEEDBRAKE (C)
LANDING GEAR (C)
AUTOBRAKE (C)
(HOLDING AT FLAPS)

CONTINUOUS
CHECKED
ARMED GREEN LIGHT
DOWN 3 GREEN
__ SET /LEVEL __ SET

-
- Call for the remaining flaps. If Flaps 30 is final, go direct from 15 to 30. If 40 is final, call for Flaps 25 then 40.
 - Speak: **“COMPLETE THE CHECKLIST”** after calling for the final landing flap. The FO will then read the Flaps challenge.

COMPLETE THE CHECKLIST

FLAPS (C)
LANDING LIGHTS (C)

___/___ GREEN LIGHT
ON

FLAPS RESPONSE EXAMPLE: THIRTY - THIRTY GREEN LIGHT

- The FO will hold at the LANDING LIGHTS challenge if the Retracts are not on.
- If the weather is bad, the FO will call **“RUNWAY/ APPROACH LIGHTS”** when the runway comes into view.
- If autopilot not engaged, speak: **“BUG VREF PLUS ___”**
- If autopilot engaged, manually set VREF plus additive.
- Passing 1000 feet callout speak **“CHECKED”**
- At 500 feet above the runway, the FO will call **“500, CONTINUE”** or **“500, GO AROUND”** if you are not stable.
- When plus 100, speak **“CHECKED”**
- At MINIMUMS, speak: **“LAND!”** otherwise follow the GO AROUND PROCEDURE.

GO AROUND PROCEDURES (SOP SET 3)

- Push the TO/GA switch
- Speak: “GO AROUND FLAPS 15”.
- Speak: “SET GO AROUND THRUST”.
- FO will verify thrust set and call “THRUST SET”.
- Speak: “GEAR UP”.
- The PM will announce “POSITIVE CLIMB” after you call for ‘Gear up’.
- At or above 400’, select or call for a lateral roll mode.
- At or above 400’ speak: “FLAPS 5” If TOGA is engaged, the speed bug goes up automatically.
- Retract the flaps on schedule, engage the Autopilot, and call for the “AFTER TAKEOFF CHECKLIST”.
- If the FO holds you at Altimeters because STD is not set, speak, for example, “MAINTAINING 3000 SET” if you are in level flight on your downwind leg.
- Manually advance the FS2Crew mode to **APPROACH** if you wish to fly the approach again.

ROLLOUT

- The PM will announce the status of the speedbrakes and reverses.
- FO will call 100, 80, 60 Knots and Autobrake Disarmed.

AFTER LANDING

When slowing to taxi speed, the Captain retracts the speedbrake and turns off the landing lights. To trigger the FO’s after landing flow, position the speedbrake down or speak “OKAY TO CLEAN UP”.

AFTER LANDING PROCEDURE

-CAPTAIN

- ✚ SPEED BRAKE DOWN
- ✚ LANDING LIGHTS OFF
- ✚ WEATHER RADAR OFF

AFTER LANDING PROCEDURE

-FIRST OFFICER

- + TAXI LIGHT ON
- + STROBES OFF
- + TRANSPONDER STANDBY
- + FLAPS UP
- + TRIM 5 UNITS
- + AUTOBRAKE OFF
- + SYS PAGE TO HYD, THEN ENG
- + CHRONO (ET) OFF
- + FLIGHT DIRECTORS OFF
- + SET SPEED TO 100
- + SET ALT TO AN ODD LEVEL + 100
- + START SWITCHES OFF
- + PROBE HEAT OFF

TAXI IN

- If you require APU power, and if you did not select the FO to automatically turn on the APU during the AFTER LANDING PROCEDURE in the APPROACH BRIEF, speak “**TURN ON THE APU / START THE APU**” when desired. Turn it on as late as possible to save fuel.
- If desired, shut down engine number two to save fuel. See the Engine Shutdown procedure described after the TAXI section in this tutorial.
- If performing a single engine taxi, the FO may announce an associated MASTER CAUTION shortly after shutting down engine two. Speak: “**CHECK**”
- If using the APU, the FO will announce “**APU IS AVAILABLE**”. Speak: “**APU ON THE BUSES**” to command the FO to put the APU on the bus.

SINGLE ENGINE TAXI:

- If you wish to shut down an engine during taxi to save fuel, follow this procedure.
- Wait three minutes for engine cool down prior to shutting down the number two engine. Note that in SOP 2 the FO does not call out "three minutes" like he does in the other SOPs.
- Note that the area of responsibility for the engine fuel lever depends on if the aircraft is moving or stationary.
- Flight simulator has a ground friction problem that can make single engine taxiing very difficult. You may wish to use this solution.
 - ✓ Install FSUIPC if you do not already have it (www.schiratti.com)
 - ✓ Go to this folder in your FS directory: **/Modules/FSUIPC Documents/Example LUA Plugins.zip**
 - ✓ Copy "DynamicFriction.lua" from that zip file and put it in your **FS/Modules folder**.
 - ✓ Open your **FSUIPC4.ini** file with Notepad.
 - ✓ Add these lines:
 - **[Auto]**
 - **1 = LUA DynamicFriction**

IF AIRCRAFT MOVING:

- ✓ Speak: "**SHUTDOWN RIGHT ENGINE / SHUTDOWN NUMBER TWO ENGINE**"
- ✓ The FO will place his virtual hand on the engine two start lever.
- ✓ The FO will speak: "**ENGINE START LEVER NUMBER TWO CONFIRM**".
- ✓ Speak: "**CONFIRMED**".
- ✓ The FO will then set the FUEL LEVER to CUTOFF for engine two.

IF AIRCRAFT STATIONARY:

- ✓ Put your mouse on the number two start lever and speak: "**ENGINE START LEVER NUMBER TWO CONFIRM**".
- ✓ The FO will respond "**CONFIRMED**".
- ✓ Manually set FUEL LEVER #2 to CUTOFF.

GATE/STAND ARRIVAL PRE-SHUTDOWN

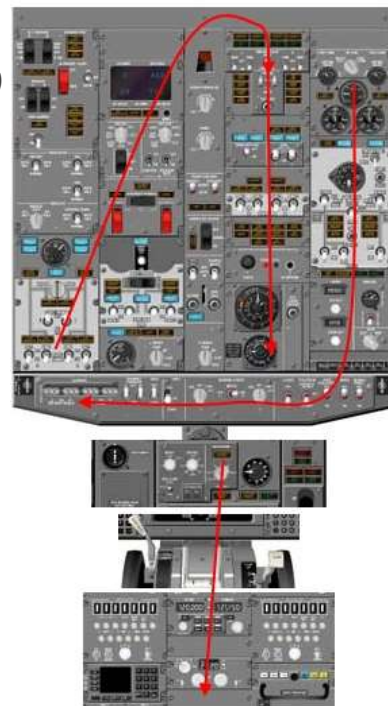
- When you park at the gate or stand, set the parking brake. Make sure the TAXI LIGHT is OFF or the GPU and/or AC CART will not be able to auto connect if you them selected to auto connect.
- Speak: **“TWO BLUE, ONE RED”**, referring to the electrical which is off the GEN and the PARKING BRAKE set.
- Shut down the engines, but make sure you have a power source first! Set the seat belt and no smoking (chime) signs to off.
- Make the following PA: **“CABIN CREW DISARM SLIDES AND OPEN DOORS”**. That is the trigger for the cabin and cargo doors to open.
- When parked, the FO does nothing other than read the checklist.
- If you unlock the cockpit door, you will hear the sound of the passengers deplaning.

GATE/STAND ARRIVAL SHUTDOWN

SHUTDOWN PROCEDURE (NON-TRANSIT / FULL SHUTDOWN)

-CAPTAIN

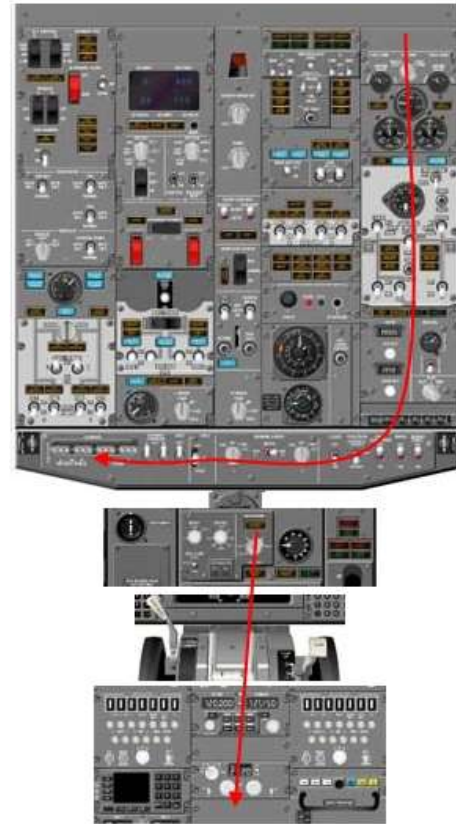
- ✚ FASTEN BELTS OFF AND (NO SMOKING) CHIME TO OFF
- ✚ PUMPS OFF (LEAVE PUMP 1 FWD ON IF APU RUNNING)
- ✚ WINDOW HEAT OFF
- ✚ ELEC HYD OFF
- ✚ ISOLATION VALVE OPEN
- ✚ ANTI COLLISION LIGHT OFF (WHEN N2 < 20%)
- ✚ TRANSPONDER 2000 STANDBY



SHUTDOWN PROCEDURE (TRANSIT)

-CAPTAIN

- ✚ FASTEN BELTS OFF AND (NO SMOKING) CHIME TO OFF
- ✚ VOICE RECORDER ON (NOT MODELLED)
- ✚ ISOLATION VALVE OPEN
- ✚ ANTI COLLISION LIGHT OFF (WHEN N2 < 20%)
- ✚ TRANSPONDER 2000 STANDBY



- If this is the terminal leg, speak: “**SHUTDOWN CHECKLIST (PLEASE)**”.
- If you will fly another sector, speak: “**TRANSIT SHUTDOWN CHECKLIST (PLEASE)**”.

SHUTDOWN CHECKLIST (PLEASE) / TRANSIT SHUTDOWN CHECKLIST (PLEASE)

FUEL (C)	PUMPS OFF
*ELECTRICAL (C)	ON APU/ ON GPU / ON GROUND POWER
*FASTEN BELTS (C)	OFF
WINDOW HEAT (C)	OFF
*PROBE HEAT (C)	OFF
*ANTI ICE (C)	OFF
ELECTRIC HYD PUMPS (C)	OFF
*VOICE RECORDER (C)	ON / AUTO
*AIR COND (C)	PACKS (AUTO / OFF) BLEEDS ON
*EXTERIOR LIGHTS (C)	STEADY / STEADY AND LOGO / STEADY AND WHEEL WELL/ STEADY LOGO AND WHEEL WELL
*START SWITCHES (C)	OFF
*AUTOBRAKE (C)	OFF
*SPEEDBRAKE (C)	DOWN DETENT
*FLAPS (C)	UP NO LIGHTS
*PARKING BRAKE (C)	SET
*START LEVERS (C)	CUTOFF
*WEATHER RADAR OFF (C)	OFF
*TRANSPONDER (C)	STANDBY
*CVR CB (C)	IN / OUT
*COCKPIT DOOR (C)	UNLOCKED

Notes:

1. * Symbol denotes item to be read on Transit Checklist.
2. If you will be flying another sector, call for the “**TRANSIT SHUTDOWN CHECKLIST**”, otherwise call for the “**SHUTDOWN CHECKLIST**”.
3. If you want to make a second flight, you do NOT need to reload the aircraft. Instead, press the down arrow button on the FS2Crew Main Panel, skip over the SECURE CHECKLIST. You will be returned to the SAFETY INSPECTION CHECKLIST. However, the SAFETY INSPECTION CHECKLIST is only run on the first flight of the day, so you can skip past it and set the mode directly to BEFORE START CHECKLIST.

When starting the next sector, only do the STATION SETUP again, program the CDU, do the PRE-FLIGHT FLOW, while the FO is doing the walkaround and get ready. You have 25 minutes left!

SECURING THE AIRCRAFT

- If you wish to secure the aircraft, use the following procedure:
Speak: “**SECURE CHECKLIST (PLEASE)**”. Note that you must have **FINAL SECTOR** set to **YES** on the APPROACH BRIEF page.
- The checklist is done as a READ AND DO. The FO reads the item and the Captain performs the action and then speaks: “**OFF**”.

SECURE CHECKLIST (PLEASE)

IRS MODE SELECTORS (C)	OFF
CAB/ UTIL, IFE (C)	OFF
AIR COND PACKS (C)	OFF
EMERGENCY EXIT LIGHTS (C)	OFF
APU / GROUND POWER (C)	OFF
BATTERY	OFF

-TUTORIAL END-