FS2Crew: FSLabs Airbus Edition
TUTORIAL: FLYING AS THE PF
FLYING THE LINE AS THE PILOT FLYING
WWW.FS2CREW.COM

LEGAL

This manual is for entertainment purposes only and is meant to be used exclusively with the flight crew software program, FS2Crew (www.fs2crew.com). While we attempt to simulate Airbus procedures as realistically as possible -procedures, which, we should point out, Airbus frequently change- this is not an official Airbus or any company specific manual, nor is it endorsed by Airbus or any airline. This manual must <u>not</u> be used for any real-world training or flying. It may contain incorrect or out-of-date information.

BUTTON CONTROL USERS – READ THIS!

This tutorial was built for Voice Control users. However, Button Control and Voice Control follow the same procedures and flows, so you can still use this tutorial as a Button Control user.

Differences between Voice and Button Control:

1. Button Control is currently limited to the Pilot Flying tutorial. In a later update we'll allow Button Control access to the Pilot Monitoring tutorial.
2. The FMGS check at 10,000 feet is not simulated in Button Control.

Notes:

On an initial install, FS2Crew starts by default in Button Control mode unless the user manually changes the interface method to Voice control.

CONFIG - SETUP
INTERFACE: BUTTON CONTROL

Button Control is generally much easier than Voice Control as you do not need to say anything, and you simply follow a linear path. All you really need to do is follow what you see on the FS2Crew Main Panel and press the **MAIN** or **SECONDARY** button when you see fit.

As shown in the Main Ops Manual, Button Control users need to assign keys in the **P3D CONTROLS -> KEY ASSIGNMENTS** screen.

Options – Key Assignments
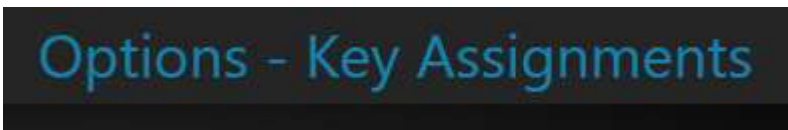
FS2Crew Main Panel = AUTOFEATHER (ARM/OFF)
Recommended key assignment: N key.

Main Button = ALTERNATE STATIC SOURCE (ON/OFF)
Recommend key assignment: **C** key.

Secondary Button = PROPELLER SYNC (ON/OFF)
Recommend key assignment: **V** key.

BUTTON PF/CM1   BEFORE START CHECKLIST   BOARDING -YES +20

In the example above:

Pressing **Main Button** would trigger the action associated with the text in white on the left side of the Main Panel.

Pressing the **Secondary Button** would trigger the action in yellow on the right side of the Main Panel.

IMPORTANT NOTE: Press the Main/Secondary Button at the **appropriate time**. Just because something is there it does not mean you have to press the Main/Secondary button right way.

FLYING AS THE PILOT FLYING

The Airbus requires two pilots to fly. In Airbus terminology, one pilot is called the Pilot Flying. The other is called the Pilot Monitoring.

In this tutorial, you assume the role of the Pilot Flying.

This tutorial assumes you generally know how to fly the aircraft and program the MCDU. However, we've added a lot of "Extra Notes" for the Airbus fan boys among you!

Things to know:

1. FS2Crew is following stock OEM Airbus procedures and the stock A320 checklist. However, where possible, we tried to add some company specific (and personal) options which are available in the Options menu on the Secondary Panel.

2. It's important that the Departure and Approach Brief Pages (FS2Crew Secondary Panel) be filled out in full. A lot of data FS2Crew needs to trigger many of the callouts and events comes directly from there, since much of that data cannot be read directly out of the aircraft due to interface limits.

3. Phrases to be issued by the user (Pilot Flying) are highlighted in RED. Phrases spoken by the PM (Pilot Monitoring) are in PURPLE.

4. If using VOICE CONTROL, it's recommended that you always keep the Green Bar visible (DSP button on FS2Crew Main Panel) so you can confirm that the speech recognition system is detecting the intended phrase. It's also a good idea to check the FS2Crew Main Panel to confirm you're in the REQUIRED FS2CREW MODE. For your commands to work, you must be in the expected mode. You cannot, for example, call for the AFTER LANDING CHECKLIST, while the mode says TAKEOFF.

5. If using Voice Control, and you get stuck in a checklist because you forget the response phrase or your phrase just isn't being detected, speak "SET AND CHECKED" to advance forward.

6. As the Pilot Flying with the autopilot on, you maintain exclusive control of the FCU. If the autopilot is off, you would command the PM to set the FCU as desired.

   Due to technical limitations, you cannot command the PM to set specific Speed, Heading and Alt values with FS2Crew. Hopefully FSLabs will release an SDK in the future allowing us to do this. However, this is not unrealistic limitation, since, as mentioned, only the PF sets the FCU when the autopilot is on, and the Airbus is usually always flown with the autopilot on except for takeoff and non-automatic landings.

   However, the following voice commands are available when the necessary conditions are met.

   Required Conditions: AUTOPILOT OFF & AIRCRAFT AIRBORNE

PULL SPEED
MANAGE SPEED
PULL HEADING
MANAGE NAV
FLIGHT LEVE PULL
FLIGHT LEVEL MANAGE
ARM APPROACH
ARM LOCALIZER
PUSH TO LEVEL OFF

Required Condition: AIRCRAFT AIRBORNE

FLIGHT DIRECTORS OFF BIRD ON
FLIGHT DIRECTORS OFF BIRD ON SET RUNWAY TRACK (NOTE: FS2CREW CANNOT SET RUNWAY TRACK)

ABOUT PANEL STATES AND THE BARO SELECTOR

PANEL STATES:

We strongly recommend that you <u>only use</u> the stock FSLabs A320 panel states.

IMPORTANT: AFTER LOADING THE PANEL STATE FILE, DO NOT MANUALLY CONNECT POWER TO THE AIRCRAFT IF USING THE FS2CREW PRE-FLIGHT EVENTS. LET THE FS2CREW PILOT SET EVERYTHING UP FOR YOU OTHERWISE FS2CREW COULD WIND UP 'TURNING OFF' YOUR POWER SOURCE. THIS IS BECAUSE CERTAIN SWITCHES CANNOT BE READ IN THE PLANE, SUCH AS THE STATE OF THE EXT AVAIL/ON LIGHT.

LOADING THE AIRBUS:

When P3D loads, the default aircraft should <u>never</u> be the FS Labs Airbus. A default aircraft should be the aircraft that appears first on the free flight screen. Then you can manually choose the FS Labs Airbus. This is to ensure everything loads cleanly.

AIRBUS OPTIONS:

Ensure that '**BARO SELECTOR SYNCED** IS SET TO **ON**' in the Airbus EFIS OPTIONs. FS2Crew cannot control the baro selector directly for both pilots, so this option must be selected to ON.

EVENT	PILOT FLYING	PILOT MONITORING	REQUIRED FS2CREW MODE	DEVELOPER NOTES
PREFLIGHT EVENTS TO RUN THE PREFLIGHT EVENTS, OPEN THE FS2CREW SECONDARY PANEL AND PRESS THE 'PF' BUTTON. ENSURE THE ENGINES ARE OFF THEN RUN THE PRE-FLIGHT EVENTS. NOTE: RUNNING THE PRE-FLIGHT EVENTS IS **OPTIONAL**!				
SAFETY EXERIOR INSPECTION FLOW		-WHEEL CHOCKS CHECK -L/G DOORS CHECK POSITION -APU AREA CLEAR		YOU CANNOT FAST FORWARD THE TIME DOWN WHILE A FLOW IS RUNNING. THIS IS A LONG PROCEDURE (AROUND 3 MINUTES). YOU CAN DISABLE THIS INSPECTION IN THE CONFIG OPTIONS.
PRELIMINARY COCKPIT PREPERATION FLOW	 FMGS PRE-INIT:	-ENG MASTERS 1,2 OFF -ENG MODE SELECTION CHECK NORM -WEATHER RADAR OFF -WIPERS OFF -BAT CHECK -EXT PWR PB-SW AS RQRD -APU FIRE TEST -APU START -AIR CON PANEL SET -COCKPIT LIGHTS AS RQRD -ECAM RCL PRESS -ECAM OXY PRESS/ HYD QTY/ ENGINE OIL QTY CHECK -FLAPS CHECK POSITION		THE PM STARTS THE APU EARLY (WE'RE FOLLOWING THE AIRBUS BOOK TO THE LETTER!) HOWEVER, IF YOU WANT TO START THE APU LATER, A CONFIG OPTION IS AVAILABLE SO YOU CAN START THE APU MANUALLY AT YOUR DESIRED TIME. SAME THING FOR THE GPU.

	-ENG & A/C TYPE CHECK -DATABASE VALID -FLT NUMBER & FROM/TO -ACARS INITIALIZE -ALL EFB/EQRH START -EFB/EQRH CHECK VERSION -OEB IN EQRH CHECK	-SPD BRK LEVER CHECK RETRACTED AND DISARMED -PARKING BRAKE ON -CHECK ACCU/BRAKES PRESSURE -ALT BRAKING CHECK -ALL EFBS/EQRH START -EFB/EQRH CHECK -OEB IN EQRH CHECK		
	CM1 -ECAM RECALL PRESS -LOGBOOK CHECK -EFB MEL/CDL CONSULT AND ACTIVATE INOP ITEMS	**CM2** -LOGBOOK CHECK -EFB MEL/CDL CONSULT AND ACTIVATE INOP ITEMS -AIRFIELD DATA OBTAIN -EMER EQPT CHECK -RAIN REPELLENT CHECK -C/B PANELS CHECK -GEAR PINS AND COVERS CHECKED ON BOARD & STOWED -EXTERIOR WALKAROUND		
COCKPIT PREPERATION (OVERHEAD)	-ALL WHITE LIGHTS EXTINGUISH -RCDR CTRL ON -CVR TEST PERFORM -ALL IRS NAV -STROBE AUTO			NOTICE THAT THE PILOT FLYING (THAT'S YOU) SETS UP THE OVERHEAD PANEL AND TURNS ON THE FUEL PUMPS, ETC.

	-BEACON OFF -REMAINING LIGHTS AS RQRD -SIGNS ON/AUTO -EMER EXIT LT ARM -LDG ELEV AUTO -PROBE/WINDOW HEAT AUTO -PACK FLOW AS RQRD -BAT CHECK -FUEL MODE AS RQRD ENGINE FIRE TEST -AUDIO SWITCHING NORM -VENT CHECK -PA RECEIPT -MAINT PANEL CHECK			
COCKPIT PREPERATION (CENTER INSTRUMENT PANEL)	-STANDBY INSTRUMENTS CHECK -CLOCK CHECK/SET -A.SKID & NW STRG SW ON			
COCKPIT PREPERATION (PEDESTAL)	-ACP CHECK -COCKPIT DOOR CHECK -SWITCHING PANEL NORM -THRUST LEVERS IDLE -ENGINE MASTERS OFF -ENGINE MODE SELECTOR NORM -PARK BRK AS RQRD -GRAVITY GEAR EXT CHECK STOWED			IF DESIRED, ASK THE PM TO OBTAIN ATC CLEARANCE AS REQUIRED. IT MIGHT BE GOOD GET YOUR ATC CLEARANCE PRIOR TO SETTING UP THE MCDU. COMMAND: REQUEST ATC CLEARANCE

	-ATC STANDBY -RMP SET -AIRFIELD DATA OBTAIN -ACARS INITIALIZE -FMS PREPARE *AFTER COMPLETING THE MCDU (FMS PREPERATION), ASK THE PM TO CHECK YOUR WORK. COMMAND: CHECK THE BOX	-FMS PREPERATION CHECK		FOR THE 'CHECK THE BOX', ALL THE PM WILL DO IS SIMULATE CHECKING EACH PAGE IN THE MCDU. THIS ONLY WORKS IF YOU'RE SITTING IN THE LEFT SEAT.
COCKPIT PREPERATION (WHEN BOTH CREW SEATED)	-BARO REF SET -FD CHECK ON -LS AS RQRD -ND SET -VOR/ADF AS RQRD -FCU SET GROUND FROM COCKPIT GO AHEAD OXYGEN TEST ROGER -OXYGEN MASK TEST -PFD/ND BRIGHTNESS -LDG ELEV (ECAM) AUTO -ECAMS STATUS CHECK -TAKEOFF BRIEF COMMAND: ARE YOU READY FOR THE TAKEOFF BRIEFING?	-BARO REF SET -FD CHECK ON -LS AS RQRD -ND SET -VOR/ADF AS RQRD		PRIOR TO PERFORMING THE OXYGEN TEST, YOU SHOULD NOTIFY THE GROUND CREW THAT YOU'LL BE PERFORMING THE TEST SO YOU DON'T HURT HIS EARS. THERE ARE MULTIPLE WAYS TO ALLOW FOR COMMUNICATION WITH THE GROUND CREW. THE EASIEST WAY IS TO SET YOUR ACP TRANSMITTER TO THE "INTERPHONE (INT)" POSITION. ------------------------ IT'S NOT AN OFFICIAL AIRBUS PROCEDURE, BUT

	GO AHEAD ANY QUESTIONS? NONE			AT SOME AIRLINES THE PF WILL "READ ALOUD" WHAT IS SHOWN ON THE PFD AND ND AND THE PM WILL CROSS CHECK IT WITH HIS SIDE. ----------------------- OTHER FS2CREWS HAVE THE OPTION TO PLAY AN AUDIO BRIEF. HOWEVER, IT WAS NOT POSSIBLE TO DO THAT IN THIS VERSION. THE AIRBUS BRIEFING STYLE INVOLVES READING LOTS OF DATA OFF THE SCREENS. IT'S JUST NOT TECHNICALLY POSSIBLE TO MODEL THAT IN A SATISFACTORY WAY.
FA ASKS IF READY TO START BOARDING (INTERNATIONAL +30 MINUTES / DOMESTIC +20 MINUTES)				ALLOWED RESPONSES: -YES -AFFIRMATIVE -OKAY -GO FOR IT -YES PLEASE
BEFORE START CLEARANCE (AFTER LOADSHEET RECEIVED AT TIME REMAINING +10 MINUTES)	-LOADSHEET CHECK -ZFW/ZFWCG CHECK / REVISE -FOB CHECK	-LOADSHEET CHECK -ZFW-ZFWCG CROSSCHECK -FOB CHECK	BEFORE START CHECKLIST	THE TRIGGER FOR THIS FLOW IS RECEIVING THE LOADSHEET. ALLOWED VOICE RESPONSES FOR

	FMS TO DATA CHECK /REVISE AS RQRD -SEATING POS ADJUST -FMS PERF TAKEOFF PAGE SELECT -ORDER "BEFORE START CHECKLIST"	-REVISED FMS TO DATA CROSSCHECK -SEATING POSITION ADJUST FMS F-PLN PAGE -SELECT -EXT PWR REMOVE CALL: GROUND FROM COCKPIT REMOVE EXTERNAL POWER		RECEIVING THE LOADSHEET: -THANK YOU -OKAY THANKS -THANKS

Extra Notes:

- Check green AVAIL light on External Power switch illuminated prior to requesting external power disconnect. If external power disconnected while it is in the ON or AUTO position may severely injure the ground engineer.

BEFORE START CHECKLIST	
COCKPIT PREP	COMPLETED (BOTH)
GEAR PINS AND COVERS	REMOVED
SIGNS	ON AUTO
ADIRS	NAV
FUEL QUANTITY	XX KILOGRAMS/POUNDS
TO DATA	SET
BARO REF	XXXX SET (BOTH)
DOWN TO THE LINE	

Extra Notes:

- For BARO REF, you can also say "QNH XXXX SET" or just "XXXX SET".

- For the ADIRS challenge, do not look at the switch positions on the overhead panel. Instead, look at the IRS MONITOR page on the MCDU to confirm that they're in NAV. In the Airbus, the physical position of the switches doesn't matter so much. Consider them to be like "FICTION". It's what you see on the screens that count: They are the "FACT".

- For the TAKEOFF DATA challenge, look at the PERF page on the MCDU and check it's okay.

TIME REMAINING: +3 MINUTES CABIN CREW ASKS IF FLIGHT DECK DOOR CAN BE CLOSED				ALLOWED RESPONSES: -THANKS -THANK YOU -YES -AFFIRMATIVE -THANKS IT WILL BE A SHORT TAXI -THANKS IT WILL BE A LONG TAXI -CLEARED TO CLOSE SHORT TAXI -CLEARED TO CLOSE LONG TAXI DEFAULT JETWAY WILL BE PULLED AWAY AT +2 MINUTES. ONLY THE 'DEFAULT' JETWAY CAN BE CONTROLLED.
TIME REMAINING: 0 OR PLUS 1 MINUTE PUSHBACK / START CLEARANCE PRIOR TO PUSHBACK/ENGINE START	REQUEST PUSHBACK / START CLEARANCE REQUEST START CLEARANCE OR: REQUEST PUSHBACK AND START CLEARANCE AFTER CLEARANCE RECEIVED: -WINDOWS AND DOORS CHECK CLOSED	OBTAIN CLEARANCE -ATC PANEL SET -WINDOWS AND DOORS CLOSED -SLIDES CHECK ARMED	---> BELOW THE LINE	REQUESTING START/PUSHBACK CLEARANCE IS A TRIGGER. THE MODE WILL CHANGE TO **<<ENGINE START>>** AFTER THE BEFORE START CHECKLIST HAS BEEN COMPLETED BELOW THE LINE. FS2CREW WILL APPLY A "RIGHT MOUSE CLICK" TO THE CM1 PA TRANSMIT BUTTON TO

	SPEAK:			TRIGGER THE DOORS ARMING ROUTINE IN THE FSLABS AIRBUS.
	CABIN CREW ARM SLIDES AND CROSSCHECK			
	-SLIDES CHECK ARMED -BEACON ON -THRUST LEVERS IDLE -ACCU PRESS CHECK -PARKING BRAKE CHECK ON -BRAKE PRESSURE CHECK ORDER: BELOW THE LINE			

BELOW THE LINE	
WINDOWS DOORS	CLOSED (BOTH)
BEACON	ON
THRUST LEVERS	IDLE
PARKING BRAKE	ON / OFF / SET / RELEASED

OFFICIAL AIRBUS PUSHBACK PHRASELOGY (NOT SIMULATED – FOR REFERENCE ONLY)

When ready for pushback, and pushback clearance received:

GROUND FROM COCKPIT, CLEARED FOR PUSH

Start of push:

BRAKES RELEASED, READY TO PUSH

When ready to start engines:

CLEARED TO START?

When pushback complete:

BRAKES SET

When ready to disconnect (after both engines stable)

CLEAR TO DISCONNECT				
ENGINE START (AFTER CLEARED TO START BY GROUND CREW – DUAL ENGINE TAXI)	-ENGINE MODE SELECTOR IGN/START -ANNOUNCE: "STARTING ENGINE 2" -ENG MASTER SWITCH 2 ON CHECK: -START VALVE OPENS -N2 INCREASES -IGNITER FUEL FLOW, EGT, N1, OIL PRESS -START VALVE CLOSED: 50% N2 CFM -CHECK ENGINE IDLE PARAMETERS -REPEAT FOR ENGINE 1 -ANNOUNCE: "STARTING ENGINE 1"		<<ENGINE START>>	FOR ONE ENGINE TAXI PROCEDURES, SEE THE EXTRA NOTES SECTION BELOW. DON'T EXPECT THE PM TO RESPOND "CHECKED" ALL THE TIME, FOR EXAMPLE, AFTER ANNOUNCING ENGINE START. WE'RE FOLLOWING THE AIRBUS MANUALS TO THE LETTER REGARDING WHEN THE PILOT IS -AND IS NOT- EXPECTED TO SAY "CHECK". REMEMBER AIRBUS EMPLOYS A QUIET FLIGHT DECK PHILOSOPHY. HOWEVER, A FS2CREW CONFIG OPTION IS AVAILABLE FOR THOSE WHO WANT TO HEAR "CHECK" FOR SUCH CALLS. THAT OPTION IS CALLED "VERBOSE PM".

EXTRA NOTES:

- IF USING BOTH ENGINES FOR TAXI, ENGINE 2 IS STARTED FIRST BECAUSE IT POWERS THE YELLOW HYDRAULIC SYSTEM, WHICH PRESSURIZES THE PARKING BRAKE. IF PERFORMING A ONE ENGINE TAXI, SEE THE ONE ENGINE TAXI NOTES BELOW.
- DO NOT TURN ON THE MASTER SWITCH BEFORE ALL AMBER CROSSES HAVE DISAPPEARED ON THE UPPER ECAM

- WHEN ENG MODE SEL ON IGN/START, ECAM SD PAGE WILL AUTO CHANGE FROM DOORS TO ENGINE
- WHEN ENGINE SD PAGE DISPLAYED, CHECK FOR SUFFICIENT BLEED PRESSURE FOR ENGINE START.
- DO NOT PERFORM PUSHBACK IF NW STRG DISC NOT DISPLAYED ON THE ECAM MEMO TO AVOID DAMAGE THE NOSE LANDING GEAR. IT WILL SHOW IN GREEN AND WILL CHANGE TO AMBER AFTER 1ST ENGINE START.
- IF DURING ENGINE START (NON-PUSHBACK) THE AIRCRAFT STARTS TO MOVE, RELEASE THE PARKING BRAKE TO RESTORE NORMAL BRAKING.

CFM IDLE PARAMETERS AT ISA AND SEA LEVEL

N1: APPROX 19.5%
EGT: APPROX 390C
N2: APPROX 58.5
FF: APPROX 275 KG/H

(TIP: IT'S EASY TO REMEMBER THIS AS 2-4-6-3)

ONE ENGINE TAXI PROCEDURE (DEPARTURE – GENERALLY RARELY USED):

- ENSURE ONE ENGINE TAXI OPTION SELECTED ON FS2CREW DEPARTURE BRIEF PAGE.
- CONSIDER REQUIRED ENGINE WARM UP TIME BEFORE TAKEOFF (2 MINUTES MINIMUM AT IDLE TO AVOID THERMAL SHOCK).
- BRAKE ACCU PRESSURE – CHECK.
- ENG 1 – START (DO NOT START NUMBER 2 UNTIL LATER). SPEAK "STARTING ENGINE ONE" WHILE THE FS2CREW MODE DISPLAYS **<<ENGINE START>>.**
- SET THE ENGINE MODE SELECTOR TO NORM AND PERFORM AFTER START FLOW (BUT DO NOT PERFORM THE AFTER START CHECKLIST).
- IF APU LEFT RUNNING, MANUALLY SWITCH APU BLEED OFF.
- IF APU IS SHUTDOWN, EXPECT TO USE CROSSBLEED ENGINE START PROCEDURES.
- MANUALLY OPEN X BLEED VALVE TO SUPPLY BOTH PACKS WITH ENGINE 1.
- BEFORE RELEASING PARKING BRAKE, MANUALLY SET Y ELEC PUMP ON TO PRESSURIZE THE BRAKE ACCUMULATOR.
- TAXI NORMALLY.

WHEN READY TO START ENGINE 2:
- COMMAND: "START ENGINE 2".
- PM SETS Y ELEC PUMP OFF.
- IF APU AVAILABLE, PM SETS APU BLEED ON.
- IF APU NOT AVAILABLE, PERFORM CROSSBLEED START.
- APU AS RQRD.
- X BLEED AUTO.
- PM STARTS ENGINE 2.
- AFTER ENGINE 2 HAS BEEN STARTED, <u>MANUALLY</u> SET ENGINE MODE SELECTOR BACK TO NORMAL TO TRIGGER AFTER START FLOW.
- MAINTAIN TAXI IN A STRAIGHT LINE FOR AT LEAST 5 SECONDS AFTER ENGINE 2 MASTER LEVER ON TO ENSURE PTU AUTO-TEST COMPLETE.

WHEN BOTH ENGINE STARTED:
- ORDER AFTER START CHECKLIST.
- PERFORM FLIGHT CONTROLS CHECK. IMPORTANT! SPEAK: "FLIGHT CONTROLS CHECK".
- PERFORM TAXI FLOW.
- ORDER BEFORE TAKEOFF CHECKLIST.

AFTER BOTH ENGINES STABLE	-ENGINE MODE SELECTOR NORM -APU BLEED OFF -EAI AND WAI AS RQRD -APU MASTER OFF -STS REMINDER CHECK NOT DISPLAYED	-GROUND SPOILERS ARM -RUD TRIM CHECK ZERO -FLAPS SET FOR TAKEOFF -PITCH TRIM SET -STS REMINDER. IF DISPLAYED PRESS STS PB		TRIGGER FOR PM TO START AFTER START FLOW: ENGINE MODE SELECTOR MOVED TO NORM POSITION AND YOU **MUST** HAVE SPOKEN "STARTING ENGINE 2" AND "STARTING ENGINE 1" AS THEY ARE BOTH REQUIRED CONDITIONS. AN ALTERNATIVE METHOD TO TRIGGER THE FLOW IS TO SPEAK: "AFTER START PROCEDURE".

| AFTER START | IF PUSHBACK USED, ORDER "AFTER START CHECKLIST" AFTER GROUND CREW DISCONNECTED. | | AFTER START | |

AFTER START CHECKLIST		
ANTI ICE	OFF / ENGINE ANTI ICE ON	
ECAM STATUS	CHECKED	
PITCH TRIM	__PERCENT SET (I.E.: TWENTY FIVE PERCENT SET)	
RUDDER TRIM	ZERO	

Extra Notes:

- Pitch trim position to be set using the TAKEOFF CG value in order to avoid up/down THS mistakes.
- TAKEOFF CG must be in green band limits.
- Crosscheck TAKEOFF CG values with load and trim sheet.
- On ground, if OAT <10C with visible moisture, standing water, slush, ice or snow on taxiways, ENG ANTI ICE must be selected ON.
- After both engines started, ECAM SD page will change from ENGINE to WHEEL.

| TAXI | OPTIONAL, ASK PM TO REQUEST TAXI CLEARANCE:

REQUEST TAXI CLEARANCE

WHEN TAXI CLEARANCE OBTAINED:

-NOSE LIGHT TAXI
-RWY TURN OFF LIGHTS ON
-PARKING BRAKE OFF

CLEAR LEFT SIDE
-THRUST LEVERS AS RQRD | -CONFIRM BRAKE PRESSURE AT ZERO

CLEAR RIGHT SIDE
-ELAPSED TIME START | <<TAXI> | |

	-BRAKE CHECK	PRESSURE ZERO		

Extra Notes:

- When the PARK BRAKE released, slight residual pressure may be indicated for a short period of time on the triple head indicator.
- Max taxi speed: 30 knots on long straight taxiways. 10 knots for turns of 90 degrees or more.
- For turning, use the oversteering techniques.
- Brake pivot turn NOT allowed.
- Only a small amount of power is needed above thrust idle. Thrust should normally be used symmetrically. For tight turns, asymmetric thrust is allowed. Do not stop during a turn.
- Pedals control nosewheel steering at low speed. They can be used for straight taxiways and shallow turns but keep your hand on the tiller.
- If icing conditions exist during ground operations for more than 30 minutes, and if surface conditions permit, accelerate the engines to 70% N1 at intervals not greater than 30 minutes. If aircraft starts to move during check, retard thrust levers immediately to IDLE.
- Engines (CFM) need 2 minutes minimum at or near IDLE to stabilize.

FLIGHT CONTROL CHECK	FLIGHT CONTROL CHECK		<<FLT CONTROLS CHECK PROC>>	FLIGHT CONTROL CHECK CAN BE PERFORMED PRIOR TO TAXI OR DURING TAXI DEPENDING ON THE SITUATION. IT'S EASIER TO PERFORM THE CHECK WHILE STATIONARY (AND IF YOU HAVE A PROBLEM YOU'RE CLOSER TO THE GATE) BUT ATC MAY NOT LIKE IT AS IT MAY HOLD UP OTHER TRAFFIC.
	ELEVATOR	FULL UP FULL DOWN NEUTRAL		
	AILERONS	FULL LEFT FULL RIGHT NEUTRAL		
	RUDDER	FULL LEFT FULL RIGHT NEUTRAL WHEN COMPLETE, PM WILL SILENTLY CHECK FULL TRAVEL CORRECT MOVEMENT OF THE CONTROLS SURFACES EXCEPT FOR THE RUDDER.		IF YOU GET STUCK, SEE THE FAQS THREAD IN THE FS2CREW SUPPORT FORUM.

| TAXI | -FLT INSTRUMENTS CHECK
-TERR ON ND AS REQD
-CABIN REPORT RECEIVE
-ORDER: "BEFORE TAKEOFF CHECKLIST" | -FLT INSTRUMENTS CHECK
-RADAR ON
-PWS AUTO
-TERR ON ND AS RQRD
-AUTOBRAKE MAX
-T/O CONFIG PRESS
-TO MEMO CHECK NO BLUE
-CABIN REPORT RECEIVE | BEFORE TAKEOFF CHECKLIST | THIS FLOW IS AUTOMATICALLY TRIGGERED AT THE END OF THE PM'S FLIGHT CONTROL CHECK. HOWEVER, YOU CAN TRIGGER THIS FLOW MANUALLY BY SPEAKING: "TAXI PROCEDURE PLEASE". |

Extra Notes:

- Ensure PF's MCDU on PERF PAGE and PM's MCDU on F-PLN page.
- Takeoff Confirmation briefing only required if takeoff data has changed (i.e., runway change, changed ATC clearance).
- To check the radar, set MULTISCAN to MAN and adjust the TILT. Then reselect AUTO
- ATC config for takeoff: ATC: AUTO / ALT RPTG: ON/ ATC Code Set/ TCAS: ABV
- In Mountainous areas, consider displaying terrain on ND. If radar is required, select Radar on the PF side and TERR on PM's ND

BEFORE TAKEOFF CHECKLIST	
FLIGHT CONTROLS	CHECKED
FLIGHT INSTRUMENTS	CHECKED
BRIEFING	CONFIRMED
FLAP SETTING	CONF ___ (CONFIG 1 + F / CONFIG 2 / CONFIG 3)
V1, VR V2/FLX TEMP	___ (TOGA OR FLEX XX ARE THE TRIGGERS)
ATC	SET
ECAM MEMO	TAKEOFF NO BLUE
DOWN TO THE LINE	

| LINING UP | -EXTERIOR LIGHTS SET
-APPROACH PATH
-CLEAR OF TRAFFIC
-SLIDING TABLE - STOWED
-TAKEOFF RUNWAY CONFIRM | -TCAS TA OR TARA
-TCAS ABOVE
-APPROACH PATH CLEAR OF TRAFFIC
-CABIN CREW ADVISE | ---> BELOW THE LINE | THE TRIGGER FOR THE PM TO START HIS FLOW IS THE NOSE WHEEL LIGHT BEING SET TO THE 'TAKEOFF' POSITION.

PM WILL SET PACKS OFF IF A |

		-ENGINE MODE SELECTOR AS REQUIRED -SLIDING TABLE STOWED -TAKEOFF RUNWAY CONFIRM -PACKS 1 + 2 AS REQUIRED		PACKS OFF TAKEOFF WAS SELECTED ON THE FS2CREW DEPARTURE BRIEF PAGE.
	ORDER: "BELOW THE LINE"			

BELOW THE LINE TAKEOFF RUNWAY CABIN CREW TCAS ENGINE MODE SELECTOR PACKS	XXX CONFIRMED (BOTH) ADVISED TA / TA/RA NORMAL / IGNITION ON / OFF

Extra Notes:

If Brake Fans running:

- If > 150C, delay takeoff
- If < 150C, select brake fans off

Available Voice Command: "BRAKE FAN OFF"

Select IGN/START (CFM engine) if:

- Runway with standing water
- Heavy rain or severe turbulence expected after takeoff
  Note: Consider igniter's wear in case of continuous ignition

Available Voice Command: "IGNITION ON"

If aircraft moving, PF should ask PM to set lights.

Available Voice Commands:

"STROBES ON / STROBES OFF"
"TAKEOFF LIGHT ON" (THIS IS THE NOSEWHEEL LIGHT)
"LANDING LIGHTS ON"

If you want the PM to request Takeoff clearance:
"REQUEST TAKEOFF CLEARANCE"

When line-up clearance received:

RWY TURN OFF LIGHTS – ON
NOSE LIGHT – TO

When entering the runway (or when crossing a runway):

STROBES – ON

Entering the runway and takeoff clearance received

LAND LIGHTS – ON

PACKS:

Consider selecting packs OFF or APU Bleed ON for:

- **Improved performance (TOGA)**
- **Reduced EGT (FLEX)**

Use of APU bleed not allowed if wing anti-ice to be used.

	READY? TAKEOFF -SET T/O THRUST -START CHRONO -ANNOUNCE FMA EXAMPLE: MAN FLEX 44, SRS RUNWAY, AUTOTHRUST BLUE If CM1, keep hand on throttle until V1	-START CHRONO CHECKED	TAKEOFF	ANNOUNCING "TAKEOFF" CHANGES THE MODE TO **<<TAKEOFF ROLL>>.** IF YOU WISH THE OTHER PILOT TO BE THE PILOT FLYING, SEE THE PILOT FLYING TUTORIAL.

Extra Notes:

SIDESTICK POSITION:

- If crosswind at or below 20 knots with NO tailwind, apply half stick forward till 80 knots. Then gradually reduce to be neutral at 100 knots.

- If tailwind or crosswind greater than 20 knots, same procedure but apply full forward side stick.

IF TAILWIND OR CROSSWIND GREATER THAN 20 KNOTS:

- Set 50% on both engines.
- Apply full forward sidestick.
- Release brakes.
- Rapidly increase thrust to about 70% N1, then progressively to the takeoff thrust setting in order to reach takeoff thrust at about 40 knots ground speed.

CHRONO:

- Used to ensure the maximum time with engines at takeoff thrust does not exceed 10 minutes.

TAKEOFF ROLL	CHECKED	THRUST SET 100 KNOTS V1 ROTATE	<<TAKEOFF ROLL>>	Ensure you say "CHECKED" at 100 knots, not CHECK to help avoid the possibility that the speech recognition system incorrectly detects the RTO command: "STOP".

REJECTED TAKEOFF PROCEDURE:

As PF, announce: "STOP!"

The FS2Crew mode will change to **<<RTO>>.**

Stop the aircraft on the runway. FO will notify the Tower.

If necessary, make a CABIN PA: "ATTENTION! CREW AT STATIONS"

Run ECAM actions if necessary.

SCENERIO 1: Returning to the runway for another takeoff.

Speak: "LETS TAXI BACK TO THE RUNWAY".

The PM will reset both FDs, restore the packs if they are off, and set the transponder to standby.

The mode will revert to AFTER START.

Continue operating procedures from the AFTER START CHECKLIST.

SCENERIO 2: Returning to the gate.

Speak: "LETS RETURN TO THE GATE".
The PM will then perform his/her AFTER LANDING FLOW and you'd return to the gate normally.

INITIAL CLIMB	GEAR UP	POSITIVE CLIMB GEAR UP	<<INIT CLIMB>>	
	AUTOPILOT 1 ON OR: AUTOPILOT 2 ON -FMA CALLOUTS		AFTER TAKEOFF CLIMB CHECKLIST	If you're in the left seat (Crew Member 1) call for Autopilot 1. If you're in the right seat (Crew Member 2) call for Autopilot 2. You can select your seat position (CM1 or CM2) on the FS2Crew Departure Brief page.
CLEAN UP	AS REQUIRED: FLAPS 2 FLAPS 1 FLAPS 0 (ZERO)	SPEED CHECKED, FLAPS XX AFTER FLAPS UP: -DISARM GROUND SPOILERS -NOSE AND RUNWAY TURN OFF LIGHTS OFF	AFTER TAKEOFF CLIMB CHECKLIST	

		-APU BLEED/MASTER AS REQD -ENG MODE SELECTOR AS REQUIRED -TCAS TARA -ANTI ICE AS REQD		
PASSING GREEN DOT SPEED	CALL FOR AFTER TAKEOFF CLIMB CHECKLIST		AFTER TAKEOFF CLIMB CHECKLIST	

AFTER TAKEOFF CLIMB CHECKLIST

LANDING GEAR FLAPS PACKS DOWN TO THE LINE		UP RETRACTED ON

PASSING TRANSITION ALTITUDE	SET STANDARD CHECKED	STANDARD CROSSCHECKED. PASSING FLIGHT LEVEL XX... NOW	AFTER TAKEOFF CLIMB CHECKLIST	WHEN AFTER TAKEOFF CHECKLIST COMPLETED TO THE LINE, MODE CHANGES TO "---> BELOW THE LINE". RUN THE AFTER TAKEOFF CLIMB CHECKLIST "BELOW THE LINE" AFTER PASSING THE TRANSITION ALTITUDE AND COMPLETING ASSOCIATED CALLS.

BELOW THE LINE

STANDARD SET (BOTH)		BARO REF AFTER TAKEOFF CLIMB CHECKLIST COMPLETE.

10,000 FEET	-EFIS OPT (CONSTAINT)	-LANDING LIGHTS RETRACT		DUE TO TECHNICAL LIMITS, THE PM

	NOTE: FOR THE SEAT BELTS, RAD NAV AND COPY ACTIVE TO SECONDARY QUERIES, USE: CONFIRM / CONFIRMED / AFFIRM / AFFIRMITIVE OR NEGATIVE YES / AFFIRM / AFFIRMATIVE OR NEGATIVE	-CONFIRM SEAT BELTS OFF -EFIS OPT (AIRPORT) -ECAM MEMO CHECK CONFIRM CLEAR RAD NAV CONFIRM COPY ACTIVE TO SECONDARY CRUISE FLIGHT LEVEL IS XXX OPTIMUM FLIGHT LEVEL IS XXX RECOMMENDED MAX FLIGHT LEVEL IS XXX ARE YOU HAPPY WITH OUR CURRENT SELECTED FLIGHT LEVEL?		CANNOT "READ" THE CRUISE, OPTIMUM AND RECOMMENDED MAX ALTITUDES, SO HE'LL JUST SAY "AS INDICATED". CLEARING RAD NAV IS HIT AND MISS DUE TO TECHNICAL LIMITS. THE 10,000 FEET FMGS CONVERSATIONS ARE NOT SIMULATED IN BUTTON CONTROL. THEY ARE AVAILABLE IN VOICE CONTROL ONLY.
1000 FEET BEFORE CLEARED ALTITUDE	CHECKED	1000 TO GO -TCAS SET TO BLW		FOR THIS CALL TO WORK, A CRUISE ALTITUDE MUST HAVE BEEN ENTERED ON THE DEPARTURE BRIEF PAGE.
WHEN CLEARED DIRECT TO A WAYPOINT	CONFIRM DIRECT XXXX	CONFIRM		VISUALLY IDENTITY THE NEW WAYPOINT ON THE ND PRIOR TO CONFIRMATION.
CRUISE (ALTIMETER/RVSM CHECK)	CHECKED	CRUISING FLIGHT LEVEL XXX	CRUISE	THE MODE WILL CHANGE TO "CRUISE" WHEN

	-ECAM MEMO/SD PAGE REVIEW -FLIGHT PROGRESS CHECK -FUEL MONITOR -NAV ACCURACY MONITOR -RADAR ADJUST AS REQD			THE AFTER TAKEOFF CLIMB CHECKLIST IS COMPLETED. IF A CHECKLIST DOES NOT START, SPEAK: "RESTART THE CHECKLIST".

SETTING UP FOR ARRIVAL

Approximately 15 minutes prior to the Top of Descent point, the crew members swap controls (Pilot Flying becomes Pilot Monitoring).

SPEAK: "YOU HAVE CONTROL"

This allows the original Pilot Flying to setup the aircraft for the approach without being distracted by flying duties.

Note: If you want to pass control in a professional way, ask the other pilot if he's ready to take control. Don't just throw it on him or her. Also, to assist in situation awareness, inform him or her of your position and announce the state of the FCU (for example, which autopilot is on, which lateral mode you're in, etc.).

If you're not sure how to program the MCDU, please consult the manuals that came with the FSLabs A320 aircraft. FS2Crew assumes you generally know how to fly the plane and program the MCDU.

A useful acronymic to help the PF setup for the approach is: **PABBA**

P = PLAN MODE
A = ATIS
B = BUILD THE MEXICAN HAT (PAGE CHECKING ORDER ON THE MCDU: F-PLAN -> RAD NAV -> PROG -> PERF -> FUEL PRED -> SEC F-PLN)
B = BRIEF THE APPROACH
A = APPROACH CHECKLIST (NORMALLY DEFFERED TO LATER IF YOU ARE AT CRUISE ALTITUDES).

VOICE COMMAND:

"ARE YOU READY FOR THE APPROACH BRIEF?"

"ANY QUESTIONS?"

IMPORANT: DO NOT SKIP THE ABOVE TWO (APPROACH BRIEF) PHRASES AS THEY PUT FS2CREW INTO "DESCENT MODE", WHICH IS REQUIRED FOR MANY CALLOUTS TO PLAY DURING THE DESCENT.

When done, SPEAK: "I HAVE CONTROL"

EVENT	PILOT FLYING (ACTING AS PM)	PILOT MONITORING (ACTING AS PF)	REQUIRED FS2CREW MODE	DEVELOPER NOTES
DESCENT PREPERATION	-LANDING PERFORMANCE CONFIRM -FMS PREPARE -GPWS LDG FLAP 3 AS REQD -LDG ELEV ON CRUISE PAGE CHECK -AUTOBRAKE -APPROACH BRIEFING PERFORM -TERR ON ND AS REQD -RADAR ADJUST AS REQD -EAI AND WAI AS REQD CLEARED - ALTITUDE ON FCU		APPROACH CHECKLIST	
DESCENT	-INITIATE DESCENT -MCDU: PROG/PERF DESCENT		APPROACH CHECKLIST	
20,000 FEET		CABIN CREW PREPARE FOR ARRIVAL	APPROACH CHECKLIST	OPTIONAL CABIN PA. AIRLINE SPECIFIC. FS2CREW MUST BE IN "DESCENT MODE" (FLASHING DM ON MAIN PANEL)
APPROACHING TRANSITION LEVEL	QNH XXXX SET CHECKED	QNH XXXX CROSS-CHECKED. PASSING XXXX FEET... NOW	APPROACH CHECKLIST	

APPROACH CHECKLIST			
BRIEFING	CONFIRMED		
ECAM STATUS	CHECKED		
SEAT BELTS	ON		
BARO REF (BOTH)	__ SET (BOTH) (CAN ALSO SAY QNH XXXX SET)		
MINIMUM (BOTH)	__ SET (BOTH)		
ENG MODE SEL	AS REQD		
APPROACH CHECKLIST COMPLETE			

10,000 FEET	-EFIS: CSTR -LS: AS REQD -NAV ACCURACY: CHECK IF GPS PRIMARLY LOST	-LDG LIGHTS ON -SEATBELTS ON -EFIS: CSTR -LS: AS REQ -RADIO NAV -ENG MODE SELECTOR: AS REQD	LANDING CHECKLIST	
CLEARED FOR THE APPROACH BY ATC	-ARM APPROACH MODE ON INTERCEPT HEADING (LESS THAN 90 DEGREES) -ENGAGE BOTH AUTOILOTS		LANDING CHECKLIST	
2500 FEET	CHECKED	RADIO ALTIMETER ALIVE	LANDING CHECKLIST	
	FLAPS 1	SPEED CHECKED, FLAPS 1	LANDING CHECKLIST	
	FLAPS 2	SPEED CHECKED, FLAPS 2	LANDING CHECKLIST	
	FMA: GLIDESLOPE STAR. MISSED APPROACH ALTITUDE XXXX SET			USER SETS THE MISSED APPROACH ALTITUDE MANUALLY.
	GEAR DOWN	GEAR DOWN -SPOILERS ARM -RWY TURN OFF LIGHTS ON	LANDING CHECKLIST	

		-NOSE WHEEL LIGHT TO TAXI		
AT GEAR DOWN	FLAPS 3	SPEED CHECKED, FLAPS 3	LANDING CHECKLIST	
AT FLAPS 3	FLAPS FULL	SPEED CHECKED, FLAPS FULL	LANDING CHECKLIST	
AFTER FLAPS FULL	-SLIDING TABLE & EFB STOW -CABIN REPORT RECEIVE	-WING ANTI ICE AS REQD -SLIDING TABLE & EFB STOW -CABIN REPORT RECEIVE -CABIN CREW ADVISE: CABIN CREW BE SEATED FOR LANDING		MODE WILL CHANGE TO **<<FINAL APPROACH>>** WHEN LANDING CHECKLIST COMPLETED

LANDING CHECKLIST CABIN CREW AUTOTHRUST AUTOBRAKE ECAM MEMO LANDING CHECKLIST COMPLETE	ADVISED SPEED LOW LANDING NO BLUE

FINAL		ANNOUNCE DEVIATIONS: *1000 fpm *7 Degree bank *-2.5 / + 10 pitch *-5 / + 10 speed *LOC/GS half dot	<<FINAL APPROACH>>	
1000 FEET RA (COMPUTER GENERATED CALLOUT)	CHECKED		<<FINAL APPROACH>>	
100 ABOVE MINIMUM (COMPUTER	CHECKED		<<FINAL APPROACH>>	

GENERATED CALLOUT)				
MINIMUM -CAT I, II AND III WITH DH. (COMPUTER GENERATED CALLOUT)	CONTINUE OR GO AROUND FLAPS		<<FINAL APPROACH>>	
100 FEET RA -CAT III WITH NO DH ONLY	CONTINUE		<<FINAL APPROACH>>	MODE CHANGES TO **<<ROLLOUT>>** WHEN WHEELS ON GROUND WITH DESCENT MODE ACTIVE.
LANDING ROLL	-REVERSE IDLE OR REVERSE MAX	SPOILERS REVERSE GREEN DECEL	<<ROLLOUT>>	
70 KNOTS	-REVERSE IDLE -START TIMING ON CHRONO (3 MINUTE ENGINE COOLDOWN PERIOD)	70 KNOTS	<<ROLLOUT>>	TRIGGER FOR MODE CHANGE TO **<<AFTER LANDING>>** IF YOU ARE THE PILOT MONITORING, THIS IS WHEN YOU WOULD TAKE BACK CONTROL. SEE THE PILOT MONITORING TUTORIAL FOR MORE INFO.
TAXI SPEED	-FORWARD IDLE		<<AFTER LANDING>>	
AFTER LANDING	-LDG LIGHTS RETRACT -STROBE LIGHTS AUTO -OTHER LIGHTS AS REQD -GROUND SPOILERS DISARM	-RADAR OFF -PREDICTIVE WINDSHEAR OFF -ENG MODE SELECTOR NORM -FLAPS RETRACT -TCAS STANDBY	<<AFTER LANDING>>	DISARMING GROUND SPOILERS IS TRIGGER FOR PM TO START HIS FLOW. MODE WILL CHANGE TO **AFTER LANDING CHECKLIST** AT THE

		-ATC AS REQD BY AIRPORT OPERATIONS -APU -ANTI ICE AS REQD -BRAKE TEMP CHECK		END OF PM'S FLOW.

Extra Notes:

- To go around, announce: "GO AROUND FLAPS".

- Relevant available Voice Commands during approach:
  "WIPERS ON / OFF".

  If aircraft moving, ask PM to set lights:
  "LANDING LIGHTS OFF"
  "STROBES AUTO"

- Disarming the Ground Spoilers is the trigger for the PM to start his After Landing flow.

- PM Flap Retraction Logic:

  If approach made in icing conditions or runway contaminated with snow or slush, PM will leave the flaps down. After the engines have been shut down, engineering would inspect and clear the flap tracks as required.

  If OAT above 30C on the ground, PM will select CONF 1 to avoid an overheat in vicinity of wing bleed ducts which could trigger an ECAM caution.

ONE ENGINE TAXI PROCEDURE (ARRIVAL):

- Consider 3 minute required cool down time.
- Command: "SHUTDOWN ENGINE 2".
- PM will shut down Engine 2 and turn on the Yellow Electric Pump.

AFTER LANDING CHECKLIST	
FLAPS	RETRACTED
SPOILERS	DISARMED
APU	START / OFF
RADAR	OFF
PREDICTIVE WINDSHEAR SYSTEM	OFF
AFTER LANDING CHECKLIST COMPLETE	

PARKING	APPROACHING THE GATE: TURN OFF NOSE LIGHT OR ASK THE PM TO DO IT SO YOU DON'T BLIND THE RAMPERS: TAXI LIGHT OFF		<<PARKING>>	WHEN AFTER LANDING CHECKLIST COMPLETED, MODE WILL CHANGE TO **<<PARKING>>.**
	AT GATE/STAND: -ACCU PRESS CHECK -PARK BRAKE ON -BRAKE PRESS CHECK -ENG MASTER 1,2 OFF -PA by CM1: CABIN CREW DISARM SLIDES AND CROSS CHECK -SLIDES CHECK DISARMED	--------1ST-------- -ANTI-ICE OFF -APU BLEED ON -ELAPSED TIME STOP		TRIGGER FOR 1ST PART OF PM'S PARKING FLOW: TAXI LIGHT OFF PARKING BRAKE ON DESCENT MODE ACTIVE MODE = **<<PARKING>>**
	-SEATBELTS OFF -BEACON OFF -GROUND CONTACT ESTABLISH -PARKING BRAKE AS REQD -DU'S DIM	--------2ND-------- -FUEL PUMPS OFF -ATC STANDBY -IRS PERF CHECK -FUEL QUANTITY CHECK -STATUS CHECK -BRAKE FAN OFF -DU'S DIM		TRIGGER FOR 2nd PART OF PM'S PARKING FLOW: 1ST PART COMPLETE, DESCENT MODE ACTIVE, MODE = **<<PARKING>>,** SEATBELT SWITCH OFF. FS2CREW WILL APPLY A "RIGHT MOUSE CLICK" TO THE CM1 PA TRANSMIT BUTTON TO TRIGGER THE DOORS DISARMING ROUTINE IN THE FSLABS AIRBUS.

Extra Notes:

- If START APU TAXI IN Config Option Set to NO, shutdown the left engine first. FS2Crew will then connect the GPU. After the GPU is connected and brought on-line, shut down the right engine.
- When setting the parking brake, confirm PARK BRK MEMO is displayed. Check brake pressure and ACCU pressure (must be in green band).
- If brake temps above 500C (or 350C with brake fans on), avoid applying the parking brake unless necessary.
- If one brake temp is above 300C (or 150C with brake fans ON), release the parking brake after the chocks are in place, operational conditions permitting (no slippery surface).
- Ensure minimum time at or near IDLE 3 minutes or greater to stabilize the engine hot section.
- PM will select APU Bleed ON just before engine shutdown to avoid the ingestion of exhaust gases from the engines.
- If MAINTENANCE STATUS message displayed, check MMEL.
- IRS Performance check. Not simulated, but the PM would go to the MCDU: DATA/POSITION MONITOR PAGE, check the deviation of each IRS position from the FMGC position and check that the value does not exceed a graph available in the FCOM.

PARKING CHECKLIST	
APU BLEED	ON
ENGINES	OFF
SEAT BELTS	OFF
EXT LT	OFF / NAV LOGO ON
FUEL PUMPS	OFF
PARK BRK & CHOCKS	ON AND IN / ON AND OUT/ OFF AND IN / OFF AND OUT
PARKING CHECKLIST COMPLETE	

SECURING THE AIRCRAFT	SECURE THE AIRCRAFT PLEASE			
	-PARKING BRAKE CHECK ON -ADIRS OFF	-OXYGEN CREW SUPPLY OFF -EXT LIGHTS OFF -MAINT BUS SW AS REQD -APU BLEED OFF -APU MASTER SW OFF -EMER EXIT LIGHT OFF -SIGNS OFF -EXT PWR AS RQRD		

		WAIT 2 MINUTES		
		-BAT 1+2 OFF		

Extra Notes:

- Crews very rarely perform the Securing Aircraft function. Like with the PRELIMINARY COCKPIT PREPERATION and COCKPIT PREPERATION sections, according to Airbus it's okay to reference your manuals when performing the Securing Aircraft section.
- To ensure ADIRS memorizes the last data, PM will wait at least 10 seconds before turning OFF the electrical supply.
- To prevent smoke from entering the cabin during the next APU start, PM will wait 2 minutes after the APU AVAIL light goes out before setting the batteries to OFF to ensure the APU flap has fully closed.

SECURING THE AIRCRAFT CHECKLIST	
ADIRS	OFF
OXYGEN	OFF
APU BLEED	OFF
EMER EXIT LT	OFF
SIGNS	OFF
APU & BAT	OFF
SECURING THE AIRCRAFT CHECKLIST COMPLETE	

-TUTORIAL END-