Wilco Fleet



Add-on for Microsoft® Flight Simulator

TUTORIAL FLIGHT

Not for real aviation use!





Wilco Publishing http://www.wilcopub.com E-mail: info@wilcopub.com

A380 TUTORIAL FLIGHT FROM TOULOUSE-BLAGNAC (LFBO) TO LE BOURGET (LFPB) (France)

Tutorial written by Christophe Modave, with the help of Alex Ford.

Before running Microsoft Flight Simulator, be sure to have the latest Wilco Fleet : A380 version installed (check for updates available on the SUPPORT page at www.wilcopub.com).

This tutorial does work! It has been flown many times, BUT you must follow the instructions EXACTLY and QUICKLY to be successful. If you fail then please try once more - you will be successful after practice -Good flying !

Setting up the flight

It is strongly advised that you read the A380 pilots guide supplied with the A380 software to familiarise yourself with the layout and operation of the instrument panels.

We need to set up the A380 to have "Cold and dark" situation, i.e. no power in the cockpit. To do this:

1) Run and load the FS2004 "Default Flight".

2) When the default Cessna is loaded turn OFF ALL the systems, Engine, Magnetos, Battery, Alternator, lights etc, BUT LEAVE THE AVIONICS MASTER SWITCH ON!

3) When everything is OFF Select the and load the Wilco Fleet : A380-800 aircraft in the 'Airbus A380 House colours'.

4) When the aircraft is loaded select the FS Flight Planner from the "Flights>Flight planner" menu.

5) In the Flight Planner select Toulouse Blagnac (LFBO in the Airport ID box) and 'Gate 20 -- Gate Heavy" as the "Runway/Starting position" (bottom left box) as the departure airport. Click 'OK'.

6) Select Paris Le Bourget (LFPB in the airport ID box) as the "Choose destination" airport.

7) Making sure that the options of using the IFR, High Altitude Airways routing are set 'ON'. Press the 'Find route' button and select Flight Level 21000. Save the plan as IFR Blagnac to Le Bourget.PLN. Click 'OK' and click 'Yes' when it offers to move you to the selected airport.

8) In the "World>Weather" menu set the 'Fair Weather theme'. While still in the weather menu click on 'User-defined weather' and then on the

'Customize weather' button. On the next window move the 'Wind speed : to 'Light 8kts' and the drag the 'Wind direction' pointer to say '70' degrees. Click 'OK' twice.

9) In the 'World> Time and Season' menu set the Date to June 12 2005 and the time to 09:00 AM. When set Click OK.

10) For this short flight, we will load only 50% of fuel. Go to the 'Aircraft - Fuel & Payload' menu, press the 'Change fuel' button and set 12.5% in each of the four tanks - Click 'OK' twice to return to the aircraft.
11) Press the Flights - Save flight menu save the flight as 'A380 Tutorial 1'.

When and if you wish to fly this flight again then just start FS2004, go to the 'Flights' menu select 'My saved flights' and select 'A380 Tutorial 1' and the flight will all be set up for you with no need to go through the above procedures once more.

The Flight

Departure airport : Toulouse-Blagnac (LFBO) **Arrival airport :** Paris Le Bourget (LFPB)

D-Day:

Sunday, June 12, 2005 - 09.00 AM.

Your mission is to fly the Airbus A380 in the Airbus Company House Colours from Toulouse Blagnac to Paris Le Bourget to introduce it to the world at the Paris airshow. The weather is fine.

Power up the batteries and APU start up

We are first going to switch on the A380 systems. Pressing shift + 3 will bring the overhead panel. Bat1 and Bat2 switch lights are illuminated (see picture below), meaning that the aircraft is not electrically powered. ATTENTION! If these lights are NOT illuminated then this means that you do not have the latest update installed!



Click on the buttons to switch ON the battery system.

The EFIS screens will come alive and both the Bat1 and Bat2 lights will now be OFF. Your aircraft is now getting power from the batteries. The only switch lights that should be illuminated are the 4 engine Generator lights.



Let's now start the APU (Auxiliary Power Unit). The APU is required to start the engines.

Click on 'APU MASTER SW', followed by the 'START' button located below it. These switches are at the middle bottom of the overhead panel (see picture below).



You will hear the APU start and run sound. Wait until the green light AVAIL is ON, confirmed by 'APU AVAIL' shows on the PFD (bottom left pilots side), meaning that APU is ready.

Press SHIFT+3 to close the overhead panel.

Flight Plan Import and MCDU programming

We are now ready to enter the flight plan into the Multi-Control Display Unit (MCDU). You can create or load a flight plan through the Flight Simulator 2004 Flight Planner.

To bring up the MCDU screen, press SHIFT+2.



Click with your mouse on RSK3 button "Import FS FPL" (highlighted with a red square on the above picture). This will save the active flight plan into the MCDU. The Flight plan LFBO to LFBP should now appear.

We need to enter the requested cruise altitude by clicking on the 'PERF' button (RSK6). Use the main MCDU keypad, (number pad on the bottom left), enter the flight level as "210" (FL210) and press LSK4 button (this currently has 5 orange squares next to it) to enter the data into the MCDU. The orange squares will change to '21000'.

Press SHIFT+2 to close the MCDU window.



Engine start up

Tune into the ATIS on 118.025 and make a note of the information, then tune to get your clearance on 121.70 and request your IFR clearance. Make a note of your clearance. When ready to the ground frequency on 121.90 and 'Request Taxi IFR'. You can either do this via the RTU (Radio Tuning Units) on the pedestal (SHIFT+4 to show/hide) or by bringing up the FS ATC window and pressing the appropriate key numbers. You will need to bring up the ATC window to speak to Ground.

After having received your taxi information from the ground controller, start the automatic pushback sequence by pressing SHIFT+P+2. During the pushback sequence, start up your engines. This is done quickly and easily with the help of the FADEC system.

Press Shift+4 to access the pedestal and click on each of the engine switches.



As each engine has finished starting be sure to go to the overhead panel once more and turn ON each of the engine generators otherwise the batteries will go flat!

It is easy to see the Generator switches as these will be the only switches illuminated, whilst looking at the overhead panel turn on the various aircraft lights and strobes.

Request pushback by pressing SHIFT+P and when in a good position, stop the pushback by pressing SHIFT+P once more.

Once all the engines are running and the generators are ON, release the parking brake and taxi to the runway stated by the ATC ground. If required use turn on the 'Progressive Taxi' help via the ATC window. While taxing Set the flaps to the first position (1). Turn on 'Progressive taxi' to help you taxi to the correct runway from the ATC menu to help you taxi to the correct runway.

As you are taxiing out to the runway it is now the right time to enter the transition altitude on the MCP. (See the picture below). Set 07000 in the red bordered window by clicking on the round knob directly below the display.



Engage the autobrake in case of RTO procedure (Rejected Take Off). The switch is the square one above the gear handle on the main panel - a green line will show on it when it is ON. (See the picture below).



On the large E/WD display (Centre right side - main panel) are displayed the next action that are required to be checked. Each of them are displayed in blue. As soon as the action is performed they disappear.

Set the flaps down 1 stage.

Turn ON the 'No smoking' and 'Seatbelt' signs on the overhead panel. ARM the spoilers using the SHIFT+/ keys.

And then to finish the procedure, click on the 'TO CONF' button on the pedestal (below the engines start up buttons). This will simulate an engine power to check that all systems are ready before take off. If all is OK then it should display 'T.O Config normal'. We recommend to this right before the take off, at the holding point for example. No blue lines should appear on your screens.



As you near the start of the departure runway tune the radio to the tower on 118.100 and request take off clearance - follow their instructions.

Take off

As soon as you received the take off clearance, taxi into the runway line up on the centreline and apply the brakes. When ready release the brakes and push forward the throttles to the FLEX (or TO/GA) position, the very last throttle level. FLEX or TOGA will appear on your EICAS screen.

The choice between full power take off and reduced-thrust take-off (FLEX) depends on the runway length and weather : for long runway, like Blagnac, FLEX mode can be used. For rainy or snowy days, TO/GA mode is recommended.

If you decide to use FLEX (advised) then slowly move the throttles forward until you have heard the 3rd 'click'. Once throttles are set to FLEX (or TO/GA) position, auto-throttle is armed: a blue 'A/THR' message appears on your FMA (PFD).



Once you reach the rotation speed (Vr) at 140 knots, gently and positively pull the stick back to raise the A380's nose. BEWARE of any crosswind!

When you have a positive rate of climb then select the landing gear UP.

Climb the aircraft at 180 knots.

Bring the throttles back to their CLIMB position (CL).

Engage the autopilot by pressing the 'AP1' button (see the picture below).



<u>**Right</u>** mouse click in the middle of the SPD MACH knob so that is shows --- . (three dash's and a dot). The aircraft should now automatically keep to the speed set in the flight plan.</u>

(The Auto-throttle should already be armed. This is confirmed by a white 'A/THR' message on your FMA and by the light A/THR. If not, you have to manually engage the auto-throttle mode by pressing 'A/TR' button).

<u>*Right*</u> mouse click in the middle of the altitude knob '100 1000' and a single . (dot) should appear to the right of the altitude display.

<u>Left</u> click on the HDG knob (White with Blue triangle on it), so that it shows 340. (340 and a dot). The aircraft should now turn towards the preset flight plan.

When the aircraft is heading towards and nearing the green dashed flight plan line shown on the Pilots right side ND screen, <u>right</u> mouse click in the middle of the HDG knob (White with Blue triangle on it), so that it shows ---. (three dash's and a dot). The aircraft should now automatically follow the flight plan.

When you reach 200 knots retract the flaps.



Below is how the MCP should look like when set correctly:

The three dashes and the dot (on the speed and heading screens) inform us that we are flying in 'Managed' mode. That means that the MCDU manages the aircraft speed and heading. The altitude is still in 'Controlled' mode. That means that the autopilot will reach the selected altitude by you, with the corresponding vertical speed.

If you wish you can also use the 'Selected' mode for speed and heading. Instead of three dashes and a dot displayed, you will see the selected speed and heading, followed by a dot. To engage the 'Selected' mode, (from managed mode) <u>left</u>-click <u>twice</u> on the speed or heading buttons, until the display shows the figures and the dot to the right - you can then select the speed / heading you wish and 'manually' control these items, BUT for this flight, until the approach phase, we will stay in 'Managed mode'. Our aircraft has now intercepted the correct heading according to the flight plan in the MCDU and you will need to climb and descend the aircraft using the MCP altitude controller as requested by ATC and according to the flight plan in the MCDU.

Approach and landing

Let's now start the approach and landing procedure. The controller will ask you to descend to a lower level. Reduce the altitude on the FCU to the requested level via the '100 1000' altitude selector knob. Speed can still be in 'Managed' or 'Selected' mode. You may also have to stop following the MCDU programmed route to follow a new heading requested by the controller. To achieve this, switch to the 'Selected' mode for the heading operation. To change from 'Managed' to 'Selected' mode <u>left</u> click TWICE on the centre of the appropriate knob. Your FCU should look like:



As an example, the data displayed above says that you are flying at Mach 0.60, your heading is 360° and you are descending to 15,000 ft with a vertical descent speed of 1,800 ft/minute.

Guide the aircraft via the autopilot controls in 'Selected' mode to follow the ATC instructions. As you guide the aircraft, on the MCDU, select the requested landing runway. Shift+2 will show the MCDU window. Go to the DATA page by pressing the DATA button. Enter the arrival airport code to get more information. Here, enter 'LFPB' (Paris Le Bourget) via the MCDU keypad and left click the LSK1 button.



You will see the following screen:



Click on the ILS button (LSK5) to get the ILS frequencies.



Now, click on one of the buttons located on the right side to select the ATC assigned runway. Today we will be using Runway 07. Press the 109.50 button (RSK1). The ILS frequency is 109.50. This value will be displayed in the lower left corner of the MCDU.



Go to the RAD NAV page by pressing the RADIO NAV key on the MCDU.



Click on the 3rd left button (LSK3) to enter the frequency into the NAV1 radio.

(You can also choose the one-click procedure: on the ILS page, click on the **left button** corresponding to the selected landing runway (LSK1 to 3)). This will enter the ILS frequency in NAV1 for the chosen runway and will set the ILS course according to runway heading, here 71°.

The ILS frequency is now saved into NAV1. As you get nearer to the ILS information (ILS identifier LBG and freq 109.500) and will appear on the PFD along with the Glideslope and Localiser displays. To make the information show, click on the ILS key 'LS' located below the pressure knob. (See picture below). Click on the MFD to see a large version of the instrument - click again to reduce back to normal size.



You can lower the flaps to position 1 as soon as you reach 230 Kts. Afterwards, set position 2 at 200 Kts, position 3 at 190 Kts and fully extended at 177 Kts.

Keep your speed at around 200 Kts. Intercept the ILS and select the approach mode on the FCU by pressing 'APPR' button. In this case of a fully automatic mode approach (ILS Autoland), you will have to switch ON the second autopilot (AP2). See the picture below for APPR and AP2 button locations.



You should now be aligned with the runway. Reduce your speed to 154 Kts, and lower the landing gear.



Do not forget to arm spoilers (shift+/ keys) and engage the autobrake. This will be confirmed by the green notes on the E/WD. No blue information should appear on your check-list screen.



Your aircraft will now descend until the runway threshold. The GPWS will inform you about the remaining distance between you and the ground.



Few seconds before touching the ground, the GPWS voice will announce 'Retard - Retard'. Immediately pull back the throttles to the Idle position. This will disengage the auto-throttle (a sound will warn you).

Once on the ground, engage engine reverse thrust (Press the F2 key). And apply the wheel brakes. When the speed has decreased to 60 Knots, press the F1 key to cancel the reverse thrust.

Congratulations ! You have successfully reached your destination, Paris Le Bourget airport. Taxi to the assigned parking gate according to ATC instructions. While doing this retract the flaps and spoilers.

When at the parking gate turn OFF the engines (CTRL+SHIFT+F1 keys) and turn OFF the lights, all other systems and then finally turn the batteries OFF.

We hope that this short flight will help you to fly this big sophisticated aircraft to more destinations.

The Wilco Publishing development team.