

**PREFLIGHT**

- ☐ Plan Route
- ☐ Prepare Weather
- ☐ Finalize Route
- ☐ Launch Tools
- ☐ Launch FS2004
- ☐ Select AC, Flight#, Callsign
- ☐ Load Flightplan
- ☐ Set Fuel
- ☐ Set Airport
- ☐ Set Time

**BEFORE BOARDING**

- ☐ Battery ON
- ☐ EXT PWR / APU ON
- ☐ A/C & Bleed Air SET
- ☐ Galley Power
- ☐ Nav lights ON
- ☐ Parking brakes SET
- ☐ Doors OPEN
- ☐ FSP: Crew Soundpack SET
- ☐ FSP: Company/Pilot SET
- ☐ FSP: start new flight
- ☐ Signs ON
- ☐ Music ON

**BEFORE START**

- ☐ ATIS CHECK
- ☐ Barometric pressure SET
- ☐ WX Radar SET/CHECK
- ☐ FSNV SET
- ☐ AP & Nav aids SET
- ☐ Flight Director ON
- ☐ Squawk STANDBY
- ☐ FMC SET / SID SET
- ☐ Doors CLOSED
- ☐ Request IFR Clearance
- ☐ A/C & Bleed Air SET
- ☐ Fuel Pumps / Hydraulics CHECK
- ☐ EXT PWR OFF
- ☐ Ignition SET
- ☐ Beacon light ON
- ☐ Pushback
- ☐ Start engines

**AFTER START**

- ☐ Generators ON
- ☐ APU OFF
- ☐ Cont IGN ON
- ☐ A/C & Bleed SET
- ☐ Pitot Heat ON
- ☐ Anti-Ice ON
- ☐ Flaps SET
- ☐ Trim SET
- ☐ Request Taxi Clearance

**TAXI**

- ☐ Taxi lights ON
- ☐ Speed < 30 kts CHECK
- ☐ FMC SID CHECK
- ☐ Spoiler ARM
- ☐ Autobrake MAX

**AT HOLDING POINT**

- ☐ Request Takeoff Clearance
- ☐ Strobes ON
- ☐ Landing Lights ON
- ☐ Music OFF
- ☐ Squawk Mode C SET

**BEFORE TAKEOFF**

- ☐ Strobes on CHECK
- ☐ Landing Lights on CHECK
- ☐ Squawk mode C CHECK
- ☐ Flaps set CHECK
- ☐ Signs on CHECK
- ☐ Music off CHECK
- ☐ N1 equal 50% CHECK

**TAKEOFF**

- ☐ TOGA/FLEX SET
- ☐ VR: Rotate 5-10°
- ☐ Pos. rate: Gear UP
- ☐ 1000' AGL: Incr. Flaps retract
- ☐ Request fast climb
- ☐ A/C & Bleed Air SET
- ☐ Taxi Lights OFF

**CLIMB**

- ☐ Climb rate / speed / mode SET
- ☐ Speed < 250 kts
- ☐ Pitch < 20°
- ☐ FL100: Landing Lights OFF
- ☐ FL100: Cont IGN OFF
- ☐ FL150: Signs OFF
- ☐ TA: Baro STD SET
- ☐ TA: Signs CHECK
- ☐ TA: Serve Drinks / Food / Meal

**CRUISE**

- ☐ Plan descent & landing

**DESCENT**

- ☐ TA: Baro local SET
- ☐ FL150: Signs ON
- ☐ FL120: request fast descent
- ☐ FL120: 245 kts at FL100
- ☐ FL100: Landing Lights ON
- ☐ FL100: Taxi Lights ON
- ☐ FL100: Cont IGN ON

**APPROACH**

- ☐ Landing Lights on CHECK
- ☐ Signs on CHECK
- ☐ AP & Nav aids SET
- ☐ Spoiler ARMED
- ☐ Autobrake SET

**FINAL**

- ☐ Flaps SET
- ☐ Gear DOWN
- ☐ 50' AGL: AP/AT OFF
- ☐ 10' AGL: N1 CUT, PITCH UP

**AFTER TOUCHDOWN**

- ☐ Reverse N1 SET
- ☐ 80 kts: Autobrake OFF
- ☐ 70 kts: Reverse N1 OFF, N1 SET

**RUNWAY EXIT**

- ☐ Strobes lights OFF
- ☐ Landing lights OFF
- ☐ Flaps UP
- ☐ Spoiler DOWN
- ☐ Squawk standby SET
- ☐ Music ON

**TAXI**

- ☐ Speed < 35 kts
- ☐ APU START (if no EXT PWR)

**ON BLOCK**

- ☐ Parking brakes SET
- ☐ Taxi lights OFF
- ☐ Beacon lights OFF
- ☐ Pitot & Anti-Ice OFF
- ☐ EXT PWR ON
- ☐ Engines OFF
- ☐ Signs OFF
- ☐ Doors OPEN

**COMMENTS****PREFLIGHT**

*Plan Route:* build it via FSNavigator, FSBuild, <http://rfinder.asalink.net/free/>, real life schedules etc. Or even FS own route planner if you must.

*Prepare Weather:* when flying according to a real world schedule you might want to download the exact weather for the period of time in which the flight would normally happen (by using ActiveSky et al).

*Finalize Route:* if using a more advanced route planner than the one coming with FS you will want to adjust route parameters according to the weather in which you'll be flying.

*Launch Tools:* most of us use certain 3<sup>rd</sup> party applications with FS9. An example collection: Irfanview for screenshots, AI Separation to avoid go-arounds and collisions, ActiveSky for weather generation.

*Select AC, Flight #, Callsign:* select aircraft model, enter flight number and select the callsign of the airline you will be flying for. I always use this callsign over the FSP one.

*Set Time:* take care to use the correct time. Real life schedules from airline websites mostly use local time while flightplans from virtual airlines might use UTC.

**BEFORE BOARDING**

*A/C & Bleed Air SET:* if applicable you will normally want to set APU Bleed on, all engine bleeds closed and the air condition packs to on.

*Galley Power:* not available in most aircraft models (only in complex addon aircraft), but I mention it here because I always forget to do this, and virtual passengers would probably like some virtual power to their reading lights, headphones, etc. They also don't dig cold coffee.

*Nav lights ON:* Yes. These are ALWAYS on as long as someone is on board who could fly the aircraft. Believe me.

*FSP: Crew Soundpack SET:* I fly for airlines of different nationalities, so I added this item for atmospheric reasons.

*Signs ON:* "Signs" throughout these checklists means seatbelt AND/OR no-smoking signs. It means both when on the ground and only the seatbelt sign when airborne, since about all flights are non-smoking nowadays. Just use common sense.

**BEFORE START**

*ATIS CHECK:* to get that pressure and active runway info. You will need the latter to determine the

direction of your pushback and the correct standard instrument departure (SID) if you want to fly by it. Rule of thumb for runway assignments by MS ATC: if wind speed is above 5 kts, the active runway will always be the one facing the wind the most (e.g. wind 250/08 -> runway 20 active; remember that runway numbers indicate their heading *divided by ten*). If wind speed is below 5 kts the active runway will be the primary runway; to find out which one it is you will have to check with the airport charts if available (if you don't have them, try to monitor the AI traffic). If the airport has two parallel runways, chances are you will take off from the one nearest to the gates. If the airport has e.g. four parallel runways the same applies: of the runway pair nearest to you you will probably be assigned the runway also nearest to you.

*WX Radar SET/CHECK:* weather radar. You'll know what to do here if you have one.

*FSNav SET:* another addon program I use. FSNav is great as a map/chart replacement (although it won't help you with airports that have extraordinary approach procedures). Here I load the flightplan built with FSBuild and select a SID according to the wind/active runway.

*AP & Nav aids SET:* prepare autopilot and navigation aids for your departure. Since I use SIDs whenever possible I normally set NAV radios, course and headings here. If you don't fly SIDs but just want to get to your first nav point right away you will probably only set heading/course. Also configure navigational displays as far as possible and set autothrottle/speed/speed bugs to 250 kts if applicable.

*Squawk STANDBY:* if your transponder doesn't have one of them nifty off/stby/atc buttons, just make sure it's set to 1200. Else set the selector to stby.

*FMC SET / SID SET:* here I program the flight management computer (if applicable) and select the SID again (this time in the FMC).

*Request IFR Clearance:* don't forget to set the initial altitude and Squawk code.

*A/C & Bleeds SET:* prior to engine start it's probably (dependent on aircraft) a good idea to turn off the air condition packs and make sure that all bleeds except for the APU bleed are closed.

*Fuel pumps /Hydraulics CHECK:* if applicable check that the fuel pumps are switched on and the hydraulic systems are prepared/working. Very aircraft dependent.

*Ignition SET:* most jets have two ignition systems. Select *either*, not *both*. Ideally they should be used alternately, I think in real life there's some rule

along the lines of "on even days use A, on uneven days use B" or some such.

*Pushback:* if you are confident where you will have to go (active runway), push back left or right accordingly. If you are not sure, but have enough room to turn on your own, push back straight. Else you will have to request taxi clearance BEFORE pushback, which is unrealistic but sometimes unavoidable when flying with MS ATC.

*Start engines:* if there's more than one the sequence is generally determined by the engine numbers, 1, 2, 3, 4. For exact procedures refer to your aircrafts manual/checklist. In general you select an engine, hit some ignition start switch and close the fuel cutoff switch when N1 reaches 15-20%.

#### AFTER START

*APU OFF:* also switch APU generator off.

*Cont IGN ON:* if possible, turn the continuous ignition switch on. This is for cases of emergency after takeoff.

*A/C & Bleed SET:* close APU bleed (if not already closed), open engine bleeds (aircraft dependent!), turn air condition packs back on.

*Anti-Ice ON:* wing and engine anti-ice. Not to be confused with de-ice equipment which would eat up some of your N1 thrust – not good for takeoff.

#### TAXI

*FMC SID CHECK:* depending on weather, your guesswork, MS ATC and Lady Luck you may have been assigned a different runway than you planned your departure for. Check and - if needed - adjust your FMC and nav aids here.

*Spoiler ARM:* if available and possible the ground spoiler should be armed prior to takeoff. An armed spoiler might extend when stopping at the holding point, but should automatically retract when starting to roll again. Know your aircraft before trying this.

*Autobrake MAX:* if available set your autobrakes to the maximum value in case you have to abort takeoff.

#### AT HOLDING POINT

*Squawk Mode C SET:* if your transponder does have an off/stby/atc switch, switch it to atc now.

#### BEFORE TAKEOFF

*N1 equal 50% CHECK:* if in a jet, set N1 To 50% with brakes applied to see if all engines produce the same amount of thrust. Abort takeoff if they don't, it's a failure FSP has thrown at you.

#### TAKEOFF

*TOGA/FLEX SET:* generally you don't takeoff with full thrust. Your aircraft might have a TOGA button to apply takeoff power, or, if it doesn't, the key combination you can assign to this function might work anyway. FLEX is a setting specific to Airbus which you will want to use over TOGA. All in all a very aircraft dependent item.

*1000' AGL: Incr. Flaps retract:* check your flap speeds! FSP might give you penalties if retracting flaps while already too fast for a specific flap setting.

*A/C & Bleed Air set:* in most aircraft you won't need to do this since the settings from after engine start will be ok for inflight, too.

*Taxi Lights OFF:* others will leave them on until they switch off the Landing Lights, I prefer to switch them off earlier.

#### CLIMB

*FL150: Signs OFF:* this is pretty much up to you. You might want to leave them on until reaching TA or longer, depending on the weather situation. Or you turn them off at FL100 (not sooner though, the passengers might be uncomfortable with that and it's not very safe either). Just don't forget to switch them off before reaching cruise level.

#### APPROACH

*Autobrake SET:* this time it should be set to the lowest value fitting the runway and the situation. If there's any kind of emergency you should set it to maximum, if there's precipitation and/or the runway is a bit short you shouldn't set it to the absolute lowest value. But in a normal situation (international airport, dry weather) the lowest value is recommended.

#### FINAL

*50' AGL: AP/AT OFF:* don't forget to shut down the autothrust (AT) if available. It won't get deactivated together with the autopilot!

#### AFTER TOUCHDOWN

You should not apply wheel brakes while speed > 60 kts.