



The Real Heathrow – Pilot Briefing

The UK's biggest airport and the world's busiest international airport awaits you, fully staffed for an event you will never forget.

Over 500 real flights ranging from short domestic flights to international long hauls, are available for you to book during this 6 hour event.

ATC will be provided from a live ACC in North London with over 18 active positions! We are expecting a few real London controllers to join our team as well. To ensure a smooth flow of traffic inbound to UK airspace all surrounding ACCs will be open, including Brussels, Amsterdam, Maastricht, Paris, Brest, Shannon, Dublin and Scottish.

In this guide you will find all the important information required for you to operate correctly within UK airspace, and Heathrow in particular.

Charts

You **MUST** have charts for this event. Without them you and the controllers will find it very difficult to get full enjoyment out of the event. Real pilots don't fly without them, so let us try and keep it as real as it gets!

Charts for the UK can be obtained free of charge from the [United Kingdom Aeronautical Information Service](#).

The specific charts for Heathrow can be found [here](#)

Scenery

Terminal 5 is not included in default Microsoft Flight Simulator or X-Plane. The taxiway layout is also completely different.

For this event to run smoothly, you should install some scenery which correctly models the new terminal 5 and the taxiway layout.

We recommend:

Payware - [Simwings Heathrow](#) for FS2004 and FSX (The gates at terminal 5 in the first release of this scenery were numbered incorrectly. Insure you have the latest version or park at the stands indicated in the charts, not in the simulator.)

Payware - [UK2000 Heathrow](#) for FS2004 and FSX.

Freeware - [The Demo version of UK2000](#) can be used for free with a "DEMO" sign over the airfield. This is a good option for those who don't wish to purchase the scenery but still need to see the correct airfield layout.

Freeware - [Scenery for X-Plane](#) with a recent [update](#). This scenery will update the taxiway layout and gates.

Performance - This is very important

There will be a *lot* of aircraft on the ground in London. To avoid frame rate problems on approach, which will cause severe delays, **you must reduce your aircraft display distance to 10 miles and limit the amount of aircraft lvAp will draw to 10-15 aircraft at the most**. Pilots using low-end systems are advised to reduce rendering settings as much as possible.

We also strongly suggest you test your Heathrow scenery beforehand to ensure it doesn't have any negative affects on your performance.

Last year **16%** of all inbounds crashed on downwind due to frame rate issues, don't let it be you this year.

Flight Booking

Booking for this event is unlike any other. Up until 5 hours before the event, you can only register an interest in a flight. Up to 3 people may register an interest for any one flight.

On the day of the event, 5 hours before each flight is due to depart, an email will be sent to the first person who registered an interest in that flight. The email will contain a validation link which will confirm that person would still like to fly that particular flight.

Please Note - You will only have 4 hours from the moment the email is sent to confirm your attendance.

If after 4 hours, no booking is made the flight becomes available for anyone to fly, however the 2nd and 3rd people who registered an interest will be advised by e-mail that the flight is open.

When selecting your flight, pay careful attention to the slot time. As we are using real flight schedules with a large number of flights, delays are inevitable. As a result, we have simulated the delays that each aircraft had.

It is important that the slot times are adhered to. ETD and ETA times are for reference ONLY. You **must** take off at the Slot time. (Remember, you must be airborne between -5 minutes and +10 minutes of your slot time or a new time has to be assigned.)

When departing, you should plan to push-back between 15 and 20 minutes before your slot.

Unbooked flights will be accommodated as much as possible, but there may be lengthy delays to obtain a slot.

Departing Aircraft

You should park at the assigned gate in your flight booking. If your gate is already occupied by someone else, it is likely to be someone who hasn't booked a flight. In this case, try to find a vacant gate close to the assigned one.

We will be operating a slot departure system out of Heathrow. You must log on to the network 20 minutes before your planned start-up time, it will take at least 15 minutes for the clearance controller to receive your flight strip.

If you haven't booked a flight please connect at one of the **remote stands** of **T1** (254-258), **T4** (440-441, 451-456) or **T5** (581-596).

Arriving Aircraft

Heathrow is a very busy airport so you should plan to hold at the STAR termination points, or at one of the intermediate holds. You may also be instructed to reduce speed or cross a certain fix at a designated time to reduce holding times.

The controllers will have a list of callsigns and gate numbers, but to assist them, enter your assigned gate in your flight plan comments in the form RMK/524 EGLL. Just like in the real world, on landing, you may find your gate is occupied by someone else. If this is the case, you will be asked to hold somewhere on the airfield until your gate becomes available. If you are unable to wait, inform the controller and they will find you another position to park at.

Airport Information – London Heathrow

Geographic and Administrative Data

ICAO – EGLL
IATA – LHR
Reference Point – 51 28 39N 000 27 41W
Location – 12nm West of Central London
Elevation – 83ft
Type of traffic permitted – IFR/SVFR

Runway Physical Characteristics

Runway	True Bearing	Dimensions	Surface	Threshold Elevation
09L	89.67	3901 x 50	Grooved Asphalt	79ft
27R	269.71			78ft
09R	89.68	3660 x 50	Grooved Asphalt	75ft
27L	269.72			77ft

ATS Communication Facilities

Position	IvAc Callsign	Radio Callsign	Frequency
INT N	EGLL_N_APP	Heathrow Director	119.725
INT S	EGLL_S_APP	Heathrow Director	134.975
FIN	EGLL_F_APP	Heathrow Director	120.400
AIR N	EGLL_N_TWR	Heathrow Tower	118.700
AIR S	EGLL_S_TWR	Heathrow Tower	118.500
GMC N (T1/3)	EGLL_N_GND	Heathrow Ground	121.900
GMC S (T4)	EGLL_S_GND	Heathrow Ground	121.700
GMC W (T5)	EGLL_W_GND	Heathrow Ground	121.850
GMP	EGLL_DEL	Heathrow Delivery	121.975

Radio Navigation and Landing Aids

Type	Ident	Frequency
ILS 09L	IAA	110.30 Mhz
ILS 27R	IRR	
ILS 09R	IBB	109.50 Mhz
ILS 27L	ILL	
VOR	LON	113.60 Mhz

Preferential Runway Procedures

Heathrow operates a preferential runway scheme, whereby the westerly runways (27L/27R) will be used for take-off and landing in preference to the easterly runways (09L/09R), unless wind or other factors dictate.

Runways 27L and 27R will normally be used in preference to 09L and 09R when the tailwind component is no greater than 5kts, the surface is dry and the associated crosswind component does not exceed 12kts.

In order to spread the noise impact of aircraft operations, when westerly operations are in use, Heathrow will normally make use of both runways; one for take-off and the other for landing, switching around at 1500 Local. During Easterly operations, runway 09R is used for departures and runway 09L used for landing (although 09R can also be used for landing).

During the event, if we are in Easterly operations:

All day:

**Landing Runway – 09L
Departure Runway – 09R**

During the event, if we are in Westerly operations:

13-14z:

**Landing Runway – 27L
Departure Runway – 27R**

14-19z:

**Landing Runway – 27R
Departure Runway – 27L**

Please note that these are *preferred* runways only. You may be assigned, and must be able to accept, a different runway at short notice.

Departing Aircraft

Delivery

You must log on to the network and submit your flight plan at least **20 minutes** before your pushback time, at the assigned gate in your flight booking. If your gate is already occupied by someone else try to find a vacant gate close to the assigned one.

All departing aircraft should contact “Heathrow Delivery” (EGLL_DEL) on 121.975. Allow up to 30 seconds for a reply as the controller may be busy when you first call.

You must include:

- **Callsign**
- **Stand Number**
- **Aircraft type**
- **ATIS received**
- **QNH**

If you don't include these, this may delay the issuing of your clearance.

“Heathrow Delivery, Good afternoon, Shuttle 3P, Stand 503, A320, Tango, 1024, request clearance Glasgow.”

In the UK, your clearance will only contain:

- **Callsign**
- **Clearance limit**
- **SID**
- **Squawk**

“Shuttle 3P, Cleared Glasgow, WOBUN 2F, squawk 5514”

The departing runway is not included in the clearance as it is specified in the ATIS – So don't ask for it. If you are still unsure, look at the SID. Any SID ending in:

F – 27R

G – 27L

J – 09R

K – 09L

The initial altitude is not included in the clearance as it is specified within the SID. **All Heathrow SIDs climb to 6000ft - never climb above this level unless cleared by ATC as arrivals descend to FL70 and cross the SID tracks.**

Once you have your clearance, and when you are ready to depart, you will be told to contact Ground for push, start and taxi. There could be up to 3 ground frequencies in operation at any one time, so please listen for the frequency and join the correct one. Don't just assume which you have to contact.

Ground – Pushback

On first contact with the appropriate ground frequency, you should inform them of your **stand number**:

“Heathrow Ground, Shuttle 3P, stand 503, request push and start”

If you are parked within one of the cul-de-sac's, have a good check around your aircraft before pushing back to ensure that you don't come into conflict with anyone else.

ATC may make use of a conditional clearance when approving push back. A conditional clearance is a clearance that may only be carried out once certain conditions have been met. An example:

“Shuttle 3P, after the British Airways A319 crosses behind from left to right, push and start approved, stand 503.”

The condition in this clearance is that we may only push back after the BA A319 has crossed behind us from left to right.

If you are issued with a conditional clearance but don't fully understand what you have to do, then tell ATC immediately – Don't just try do it. If you are in doubt, check!

Ground – Taxi

You must have ground charts – The ground frequencies will be incredibly busy and ATC do not want to have to provide progressive taxi instructions. Also some scenery packages show construction areas near the holding point for 27L and 27R. It is essential you ignore these and comply with taxi instructions. Construction at Heathrow is constantly changing and your scenery will be out of date - follow the ground charts!

When the ground is congested, there is a very good chance that you won't be told to taxi straight to the runway from the gate. You may only be cleared as far as intermediate holding points positioned around the airfield. If you are cleared to one of these points, make sure you stop at them!

As well as there being normal holding point names like A1, N2W etc, some are given full 5 letter designators such as ETTIV, MORRA, TITAN. If you hear any of these being mentioned, don't panic – They are just holding points and should be used like any other holding point.

During taxi, you could be asked to switch between the different ground controller positions. If you are given any frequency changes, ensure that you listen to the frequency being given – don't just assume!

When you approach the queue for the holding point of the departure runway, you will be told to monitor the tower frequency:

“Shuttle 3P, Monitor the tower, 118.7, bye”

The word “Monitor” means just that – You listen out on the next frequency, **DON'T call up**. All you need to do is switch to 118.7 / 118.5 and **stay quiet** – The controller will speak to you when he needs to. Ensure that you listen to the tower frequency given, don't just assume!

Departure

The Tower function at Heathrow is split between two controllers:

AIR N – Responsible for all movements on the Northern runway (27R/09L).

AIR S – Responsible for all movements on the Southerly runway (27L/09R).

When it is your turn to line up, the tower controller will contact you. He may issue you with a conditional clearance, so make sure you understand it:

“Shuttle 3P, after the departing Air India 747, via A3, line up runway 27R”.

Once you have been cleared for take-off, you will be handed off to one of the London Area sectors, **NOT** approach control. Please listen to the frequency that you have been told to contact, don't just assume!

You may be asked to contact one of the following sectors, depending on your departure route and who is online:

Sector	IvAc Callsign	Radio Callsign	Frequency
BIG	EGTL_SE_CTR	London Control	120.525
NW DEPS	EGTL_NW_CTR	London Control	119.775
NE DEPS	EGTL_NE_CTR	London Control	118.825
SW DEPS	EGTL_SW_CTR	London Control	134.125
S10	EGTT_10_CTR	London Control	128.125
S20	EGTT_20_CTR	London Control	135.050
S26	EGTT_26_CTR	London Control	132.605
INT S	EGLL_S_APP	Heathrow Director	134.975

Climb out

On first contact with the area sector, you should report your **passing level**, **cleared level** and **departure route**.

“London Control, Shuttle 3P, passing 2200ft climbing 6000ft, WOBUN 2F”

To assist with identification procedures, you will be asked to **squawk ident**.

”Shuttle 3P, London, roger, squawk Ident”

“Ident, Shuttle 3P”

You must climb in accordance with the SID profile. Do **NOT** climb above the initial altitude (6000ft) until you have been cleared higher. The London TMA is very congested, so don't be alarmed if you do not get further climb straight away. You may end up following the entire SID at 6000ft due to the shear volume of traffic.

ATC will climb you as and when they can, so do not request further climb.

When you are cleared to climb to a **Flight Level**, change your altimeter from the local pressure setting to the standard **1013mb immediately**.

The 250kt speed restriction below FL100 is strictly enforced within the London TMA. If you are unable to conform to this restriction, inform the delivery controller when you have been given your clearance.

You could pass between various sectors in quick succession so listen carefully to all frequency change instructions. When instructed to change frequency, you should do so without delay. When you join a new frequency, wait for about 10 to 15 seconds before transmitting your message – You may inadvertently step on another aircrafts transmission or interrupt a conversation that is going on.

Arriving Aircraft

Initial Descent

As you approach your top of descent, if you have not received any descent instructions, ask the controller for descent:

“London, Shuttle 3P, request descent.”

Do **NOT** start descending without a clearance just because your FMC told you to do so. You **MUST** always have been given a clearance to change the level that your aircraft is flying at.

Expect a stepped descent, stopping every 3-5000ft. Once you have requested initial descent do not ask again - ATC will descend you as appropriate.

End of route

All arrival routes into Heathrow terminate at one of the 4 holding stacks; Bovingdon (BNN) to the North-West, Lambourne (LAM) to the North-East, Biggin (BIG) to the South-East and Ockham (OCK) to the South-West.

As you approach the end of your requested routing, the en-route controller will inform you of the STAR you should fly. If the last waypoint of your route is LOGAN for example, the controller would say:

“Shuttle 3P, LAM 3A London Heathrow”.

They may also say:

“Shuttle 3P, Route LOGAN – LAM 3A London Heathrow.”

In both of these examples, the controller is instructing you to join the LAM 3A arrival at the waypoint LOGAN.

There are a number of STAR's which are designated as “stack swap” STAR's. During busy periods, when stacks become full, aircraft can be transferred from a busy stack to a stack with free levels. These STAR's are for use only as directed by ATC and **must not be used for flight planning** purposes. They are:

- BIG 1E/3D
- BNN 1D/1E
- OCK 1D/1G/1H

Initial Approach

Unless ATC have removed any speed restrictions, you should cross Speed Limitation Points (SLP's) at 250kts or less. SLP's are clearly indicated on the STAR charts.

If the 4 stacks around Heathrow become full of aircraft, then holding may need to take place further away from the aerodrome. Don't be alarmed if you are asked to hold at one of these designated points (There is no overflow stack for OCK):

Heathrow Stack	Overflow Stack	Inbound holding radial	Direction of turn
BNN	WCO	190	Right
LAM	BRASO	265	Left
BIG	TIGER	318	Right

Once you reach one of the 4 Heathrow stacks (BNN, LAM, BIG, OCK) you must **NOT** proceed beyond them without a clearance. If you have not had any instructions on what to do once reaching the stack, enter the published holding pattern:

Stack	Inbound course	Direction of turn
BNN	119	Right
LAM	265	Left
BIG	303	Right
OCK	330	Right

Note – Maximum speed in the hold is 220kts.

Either before you reach the stack, or while you are in the stack, you will be instructed to contact Heathrow Director. Listen carefully to the frequency you have been instructed to contact.

On first contact with Heathrow, you should pass the following information:

- **Callsign**
- **Cleared Level**
- **Position**
- **Aircraft type**
- **ATIS received**

“Heathrow Director, good evening, Shuttle 3P descending FL90, routing towards LAM, we're an A319 with Tango”

If you have been instructed to hold or are already in the hold, you will be informed of the expected delay:

“Shuttle 3P, Heathrow, Hold at LAM, total delay is 10 to 15 minutes”.

If the delay in the hold is in excess of 20 minutes, expected approach times will be issued. The EAT is the time at which ATC expects you're aircraft will be making an approach. If the time reaches your EAT and you are still in contact with ATC, you **MUST** remain in the hold – Don't leave the hold because its your EAT (Unless you have an RT failure, in which case you leave the hold at the last acknowledged EAT and carry out the non radar approach.)

Ask ATC if they anticipate how much longer you will be holding for.

When you have been instructed to leave the hold, you must comply with any speed restrictions that have been specified. If for whatever reason you are unable to fly at an assigned speed, let ATC know as soon as possible so that they can issue you with an alternative speed. **You must NOT slow down or speed up unless cleared to do so by ATC. Due to the final approach spacing in use at Heathrow, it is vital that speed control is followed.**

When you are first instructed to descend from a Flight Level to an altitude, you should change your altimeter from the standard pressure setting (1013) to the local QNH. **ONLY** change to the **local pressure setting (QNH)** when cleared to an **ALTITUDE**. If you have been **instructed** to fly at a **FLIGHT LEVEL** your altimeter should be set to **1013**.

Continuous Descent Approach (CDA)

The aim of a CDA is to provide pilots with necessary assistance so that they can achieve a continuous descent during Intermediate and Final approach at speeds which require minimum use of lift devices. This has significant benefits in terms of noise produced and reduces the amount of fuel that needs to be used. CDA's are simulated in the UK Division.

The procedure requires specific speeds to be assigned to aircraft and accurate ranges from touchdown to be provided so that aircraft can calculate the required rate of descent to achieve a continuous descent to the ground.

When you are first descended from a Flight Level to an altitude, you will be given range from touchdown information and the landing runway:

“Shuttle 3P, 23 miles for runway 27L, descend to altitude 4000ft, QNH 1027mb.”

The distance information does not need to be read back. All that would need to be read back here would be:

“Descending to altitude 4000ft, QNH 1027mb, Shuttle 3P”.

You will also be given range from touchdown information on first contact with the Final Director.

Final Approach

At some stage during the approach, you may be instructed to contact the final director, who will put you on the ILS. It is likely that you will be given the following instruction with the frequency change:

“Shuttle 3P, Contact director with callsign only, 120.400.”

This means that you should do just that – Give your callsign only to the controller on 120.400:

“Shuttle 3P”

“Shuttle 3P, hello, 19 miles, runway 27L”

In the UK, you are not “Cleared Approach”. You are only cleared to intercept the localiser. You need a separate clearance in order to descend on the Glideslope. You may be given descent clearance at the same time as the intercept clearance.

“Shuttle 3P, turn right heading 245 degrees, report localiser established runway 27L”.

“Turn right heading 245, wilco, Shuttle 3P.”

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“Localiser established, Shuttle 3P”.

“Shuttle 3P, roger, descend on the ILS”.

“Descend ILS, Shuttle 3P”.

You may also hear:

“Shuttle 3P, turn right heading 245 degrees, when established on the localiser 27L, descend on the ILS.”

In this case, you have been cleared to establish on the localiser and descend with the ILS.

Once you are established and descending with the ILS, you will likely be given the speed restriction “160kts until 4DME.” This means that you must reduce your speed to 160kts and maintain that speed until you pass 4DME from the runway. You must **NOT** reduce below or increase above this speed until you are closer than 4 miles from the runway. Most modern aircraft are more than capable of meeting this speed restriction.

You will usually be handed off to the tower controller somewhere between 6 and 15 miles out from the runway, Ensure you listen carefully to the frequency and join the correct one.

Landing

Heathrow, like many major airports, has “Rapid Exit Taxiway’s”. A Rapid Exit Taxiway is a taxiway leading off the runway, usually at a 45 degree angle, to allow aircraft to turn off the runway at a quicker speed (up to about 60kts), getting them off the runway quicker. Final approach spacing at Heathrow can be as close as 2.5nm so it is vital that you vacate the runway as quick as you can. Make use of rapid exit taxiways wherever possible. Don’t stop your aircraft on the runway – Keep rolling.

As you clear the runway you will be instructed to contact the ground controller. Listen carefully to the frequency as there could be up to 3 separate ground controllers online at any one time.

Once you have followed the taxi instructions to your assigned gate, there is no requirement for you to report on the gate or request shut down.

And Finally...

The most important thing – Have fun!!

If you have any questions at all regarding items mentioned in this document or the event in general, please do not hesitate to [get in contact](#) with the UK Division Staff.