



2019: Q4

QUARTERLY REPORT TO THE  
HEATHROW **COMMUNITY ENGAGEMENT** BOARD

FOR THE PERIOD **OCTOBER – DECEMBER 2019**

**Heathrow**

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Cover image: Terminal 5C airside Christmas decorations, November 2019  
© Heathrow Airport

# Review of the past year and decade



## FULL DECADE

- Since 2010, Heathrow has welcomed an additional 15 million passengers – an increase of 18% over the course of the decade. This passenger growth was facilitated by £12 billion worth of private investment which culminated in the opening of Terminal 2 which is now ranked by passengers as one of the best airport terminals in the world.
- In the 2010s, Heathrow served as Britain's front door for a number of nationally significant moments, such as the arrival of the world's top athletes and many excited fans ahead of the London 2012 Olympics. The airport also celebrated a landmark anniversary, with 31 May 2016 marking 70 years since Heathrow officially became a commercial airport for civilian use.
- Heathrow transformed passengers' experience with the opening of the new Terminal 2, the Queen's Terminal, in 2014. The terminal is environmentally friendly, powered entirely by renewable energy and is a testament to Heathrow's ability to deliver large infrastructure projects on time and on budget. The last decade saw Heathrow deliver on its promise of being a great place to live and work, with the airport leading the way on the London Living Wage accreditation and supporting many young apprentices from the local area in their training and career development. The decade concluded with Parliament making a landmark decision that would transform the airport's future, as MPs overwhelmingly voted in favour of expansion.
- Over the past 10 years the groundwork was laid for the airport's environmental goals, with the unveiling of Heathrow 2.0, its sustainability strategy in 2017 and £100 million of investment which funded the airport's pledge to 'Go Electric' with the EU's biggest electric fleet, the peatland restoration carbon offsetting project and the centre of excellence for sustainability. Our Fly Quiet and Green league tables revealed that more airlines are operating ultra-quiet and green 787s and A350s, partly in response to environmental pricing incentives.

## FULL YEAR

- A record 80.9 million passengers travelled through the airport in 2019, delivering the ninth consecutive year of growth for the airport. This passenger growth was driven by larger and fuller aircraft.
- 1.6 million metric tonnes of cargo travelled through the UK's largest port by value, as Heathrow played its part connecting goods to markets further afield.
- Heathrow Terminal 5 was voted the 'World's Best Terminal' at the 2019 Skytrax World Airport Awards for the sixth time in the terminal's 11-year history. Terminal 2 followed closely behind as fourth-best globally. Overall, Heathrow maintained its position as one of the top 10 airports in the world.
- In June, the airport unveiled its preferred masterplan for expansion. The plan sets out how the expanded airport will be operated and provided local residents with information on new measures to reduce congestion and emissions as well as a ban on scheduled night flights.
- Heathrow announced plans to introduce tough new measures as part of expansion to protect local air quality and reduce congestion. Subject to achieving planning consent for expansion, the airport will be launching a new Ultra-Low Emission Zone targeting older, more polluting passenger cars and private hire vehicles, before a wider Vehicle Access Charge (VAC) is later introduced for all passenger cars, taxis and private hire vehicles.

# Q4 highlights

## OCTOBER 2019

- Heathrow unveiled their first expansion innovation partner, Siemens Digital Logistics. The company will be working with the airport to implement a state-of-the-art centralised tracking system which will become the nerve-centre for expansion, connecting the network of offsite construction hubs across the UK.
- Aerotel opened in Heathrow Terminal 3 arrivals. The 82 expertly-designed guestrooms provide passengers with a comfortable space to sleep when they land early or late at night.
- Heathrow Community Trust awarded a record £350,596 to support young people in 2019. The latest round of Grants for Young People saw eight organisations receive a share of £115,177 to support their work. Projects aim to use the funding to improve literacy skills, develop interpersonal relationships and raise young people's aspirations.



Terminal 3 Aerotel reception

## NOVEMBER 2019

- Nearly 300 small to medium sized businesses attended the 23rd annual flagship Heathrow Business Summit on 21 November 2019. The Flagship Summit followed a year-long tour, consisting of 11 business summits across the UK, with over 800 SMEs in attendance. Businesses from local boroughs including Ealing, Hillingdon, Hounslow, Slough and Spelthorne kickstarted the work for procuring contracts with Heathrow's biggest suppliers.
- Heathrow revealed the airport's latest Fly Quiet and Green league table showing airlines are swapping in newer jets and improving how they fly to decrease noise and emissions. SAS was named best airline based on their performance this quarter – assisted by the introduction of A320neos, better track-keeping and continuous descent approaches. Oman Air improved its score from last quarter landing second place thanks to the introduction of 787 Dreamliners that use 25% less fuel per passenger compared with aircraft of a similar size and is 10% more fuel efficient than the "best of its competition".

## DECEMBER 2019

- Heathrow launched third annual campaign to help Britain's small businesses achieve their exporting ambitions. Under the banner of the Department for International Trade's 'Exporting is GREAT' campaign, Heathrow awarded £40,000 in vital seed money to 20 firms to fund international trade missions and foreign market research. Last year's winners include a Scottish firm aiming to reduce the cost of space travel, a Yorkshire-based premium chocolate company and a pet food manufacturer from the South West.
- 87 apprentices graduated from the Heathrow Employment and Skills Academy last year, with 68% of graduates living in the five local boroughs closest to the airport: Hounslow, Hillingdon, Ealing, Spelthorne and Slough. Since 2004 Heathrow supported over 5,800 people into employment and contributed over £13.5 million towards training and career development. Heathrow celebrated signing the Care Leaver Covenant, helping to make training and careers at Heathrow accessible to all.
- Students from Heathrow Primary decorated a Heathrow Christmas tree with over 500 hand crafted baubles and help switch on close to a kilometre of Christmas lights. Over 30 students delighted passengers in Terminal 2 with a Christmas carol flash performance and special visit from Santa. Over 70 Christmas trees decked the airport terminals as Heathrow prepared to welcome over 6.5m passengers in December.

## Our priorities



To be a great place to work, we will help our people fulfil their potential and work together to lead change across Heathrow with energy and pride



To deliver the world's best passenger experience, we will work with the Heathrow community to transform the service we give to passengers and airlines, improving punctuality and resilience



To secure future investment, we will beat the Q6 business plan and deliver a competitive return to shareholders by growing revenue, reducing costs and delivering investments efficiently



To grow and operate our airport sustainability, now and in the future

## Our values





# Mojo

## MACMILLAN COFFEE MORNING

Heathrow colleagues supported the world's biggest coffee morning and produced a delicious selection of baked goods to raise vital funds for the cancer support charity. Heathrow colleagues were invited to meet and catch up over a slice of cake and the initiative raised an incredible £7,131.42 in donations.

## BLACK HISTORY MONTH

Across the airport, colleagues showed support of the national celebration of Black History Month. As Heathrow lit up in red, African drummers and dancers provided a warm welcome to passengers to London. Heathrow's network for culture and ethnicity, the en-haNCE team, invited colleagues to wear an item of red to show their support of the national anti-racism education campaign. The annual Wear Red Day is a national day of action which encourages schools, businesses and individuals to wear red and donate towards anti-racism education for young people and adults.



Heathrow Terminal 5 lit up in red for Wear Red Day

## DRIVERLESS BAGGAGE DOLLIES

Heathrow's Baggage team have been working with British Airways and Aurrigo to develop an autonomous baggage dolly. It has the potential of making the transport of baggage safer and more efficient in our airport and across the world. The current method involves one manually driven tug towing three dollies behind. The tug can't move until the dollies are full, meaning there are many empty dollies waiting around. With driverless dollies, individual units can be moved, making the operation more efficient. The new dollies have been safety tested at Aurrigo's high-tech lab before making it Airside to Terminal 5.

## INTERNATIONAL DAY OF PERSONS WITH DISABILITIES

Tuesday 3 December 2019 marked the International Day of Persons with Disabilities. An estimated one billion people live with disabilities worldwide and face many barriers daily. Heathrow Airport's Network for Disability (HAND) works with the aim to ensure that all passengers and colleagues receive the best airport experience in the world. Every year the network organises a series of exciting events for colleagues to get involved in, including the third annual Wheelchair Basketball event in summer 2019, to last year's official Guinness World Record Winning 'Pull the Plane' event which saw a team of 100 colleagues, friends, and family in wheelchairs pull an astonishing 127.6 tonne Boeing 787-9 Dreamliner across 100 metres.

In 2019 Heathrow celebrated neurodiversity and HAND ran more fantastic events to provide colleagues with information on where to go, if they need assistance and the team was featured on BBC London, as The ADHD

Foundation in partnership with BBC Music Day arranged for a dance troupe and choir to perform 'Singing in the Rain' in T5 under 300 umbrellas.

## BIODIVERSITY AWARD

The Biodiversity Team in Heathrow Engineering was awarded the Biodiversity Legacy Award for Princes Lakes at the Construction Industry Research and Information Association (CIRIA) awards in October 2019. The team won the award for converting Princes Lakes (a former water sports club) to become part of the airports surface water run-off treatment process. The team also recognised the long-term potential for local wildlife, transforming Princes Lakes into a biodiversity paradise. The habitat management plan included the creation of new reedbeds and establishing a woodland management regime seeking to improve the structural diversity of our wooded areas. Princes Lakes is one of Heathrow's 13 biodiversity sites and it comprises 60 hectares (equivalent to 60 football pitches) and contains lakes, woodlands, landscaped areas and a number of buildings. It is home to 3.5 hectares of floral meadows and several bat boxes which provide additional roosting habitat for eight local species of bats. And it is recognised nationally as an important wintering site for Smew ducks.

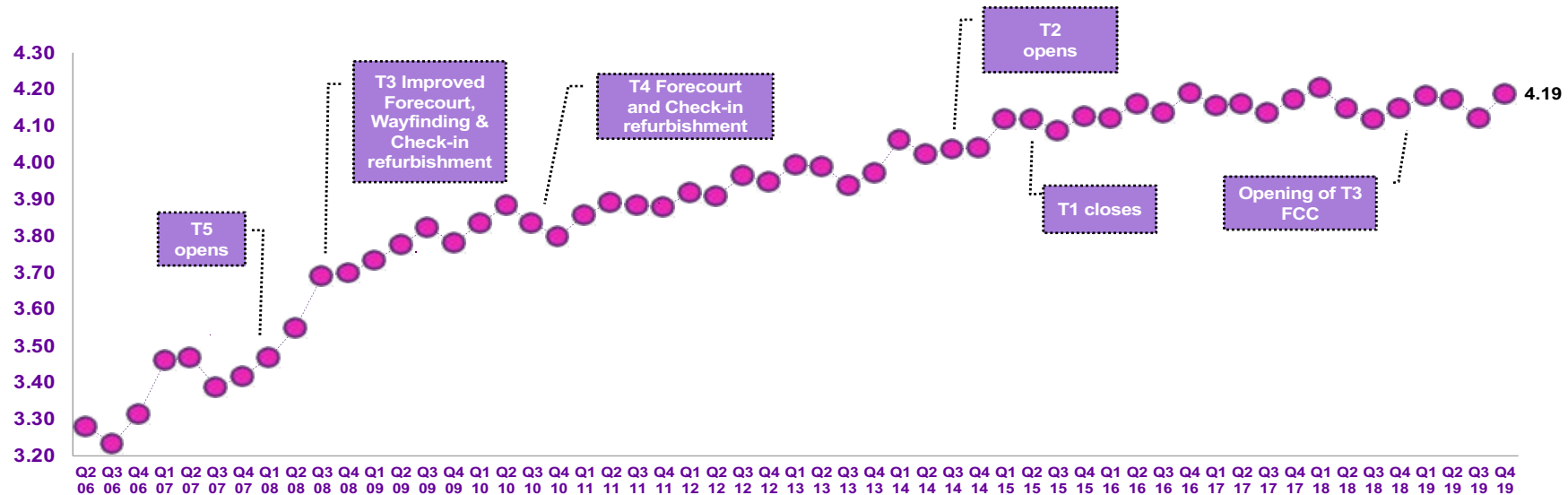


Smew duck



# ASQ performance

## Levels of customer satisfaction have improved significantly over time



Source: Heathrow Passenger & Airport Insights/ASQ Q4 2019

Note: ASQ Rating Scale: 5 = Excellent & 1 = Poor





# Heathrow's quarterly results

## Results for the year ended 31 December 2019

- Heathrow lands ninth year of consecutive growth with healthy financial performance**  
 Heathrow welcomed a record 80.9 million passengers in 2019 (+1% vs 2018) with 82% rating the airport as “Excellent” or “Very Good” following private investment of over £12 billion. The share of UK exports handled through Heathrow increased to 40%, strengthening our position as the UK’s biggest port. Heathrow remains in strong financial health: revenues climbed 3.4% to £3.1 billion on the back of increased demand to fly – supporting an additional £856 million of investment into the airport in 2019. Adjusted EBITDA rose 4.6% to £1.9 billion. Remaining competitive in the lead-up to expansion continues to be a priority: strict operating cost discipline while prioritising service, operational resilience and investment in growth has driven adjusted costs per passenger pre IFRS 16 up 5.0% to £14.85. Strong balance sheet with liquidity extended to October 2021 after raising £2.1 billion in global capital markets.
- Heathrow expansion will boost economic prosperity, fulfilling the Prime Minister’s vision of a Global Britain**  
 Case for expansion was strengthened as new figures revealed that growth at EU competitor Charles de Gaulle is set to overtake Heathrow, threatening the UK’s only hub airport and the Prime Minister’s ambition for a Global Britain. As capacity constraints continue to restrict the UK’s biggest port by value, trade and tourism volumes are likely to re-route via European competitors.

- Expanding the UK’s only hub airport will help level up the country**  
 Heathrow delivered a record year for apprenticeship starts in 2019, and finalists in the airport’s UK-wide logistics hub search await the final green light to help build expansion. £14 billion of private investment ready to launch tens of thousands of jobs, thousands of apprenticeships, new technology and huge economic benefits in every corner of the country.
- Heathrow takes a lead on addressing the biggest issue of our time – climate change**  
 Heathrow signed up to unwavering commitment of net-zero carbon by 2050, alongside the rest of the aviation industry. Heathrow achieved carbon-neutral status in January 2020 and is working towards operating zero-carbon infrastructure by mid-2030s for all its infrastructure. Heathrow remains clear that unless expansion meets strict environmental targets, no additional capacity can or will be used.

At year ended 31 December	2018	2019	Change (%)
(£m unless otherwise stated)			
Revenue	2,970	<b>3,070</b>	3.4
Cash generated from operations	1,787	<b>1,942</b>	8.7
Profit before tax	422	<b>546</b>	29.4
Adjusted EBITDA <sup>1</sup>	1,837	<b>1,921</b>	4.6
Adjusted profit before tax <sup>2</sup>	267	<b>375</b>	40.4
Heathrow (SP) Limited consolidated nominal net debt <sup>3</sup>	12,407	<b>12,412</b>	0.0
Heathrow Finance plc consolidated net debt <sup>3</sup>	13,980	<b>14,361</b>	2.7
Regulatory Asset Base <sup>4</sup>	16,200	<b>16,598</b>	2.5
Passengers (million) <sup>5</sup>	80.1	<b>80.9</b>	1.0
Retail revenue per passenger (£) <sup>5</sup>	8.94	<b>8.93</b>	(0.1)

### Notes

- Adjusted EBITDA is profit before interest, taxation, depreciation, amortisation and fair value adjustments on investment properties.
- Adjusted profit before tax excludes fair value adjustments on investment properties and financial instruments.
- Consolidated nominal net debt is short and long-term debt less cash and cash equivalents and term deposits, it includes index linked swap accretion and hedging impact of cross currency interest rate swaps. It excludes pre-existing lease liabilities recognised upon transition to IFRS 16, accrued interest, bond issue costs and intra-group loans.
- The Regulated Asset Base is a regulatory construct, based on predetermined principles not based on IFRS. It effectively represents the invested capital on which we are authorised to earn a cash return.
- Changes in passengers and retail revenue per passenger are calculated using unrounded passenger numbers

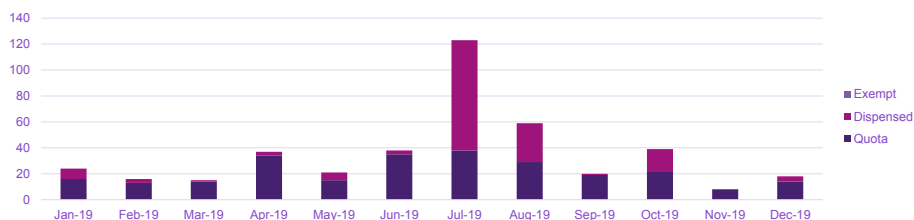




# Night flights

## Departures

Late running departures by quota, dispensed and exempt (Jan – Dec 2019)



Departure Night Movements 2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Quota	16	13	14	34	15	35	38	29	19	22	8	14	257
Dispensed	8	3	1	3	6	3	85	30	1	17	-	4	161
Exempt	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>24</b>	<b>16</b>	<b>15</b>	<b>37</b>	<b>21</b>	<b>38</b>	<b>123</b>	<b>59</b>	<b>20</b>	<b>39</b>	<b>8</b>	<b>18</b>	<b>418</b>

**Notes**

1. Dispensed flights: Sometimes, for reasons of disruption, emergency or passenger hardship, flights are allowed by DfT to operate outside the constraints of the movement limits.
2. Exempt flights: Aircraft are currently exempt from movement limits if their noise certification data is less than QC 0.25. Other exempt flights include State flights, head of Military, select VIP's.



## Departures

Departure night movements by time window (Jan – Dec 2019)

Departure Night Movements 2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
23:30 - 00:00	15	10	8	16	16	21	61	42	11	32	5	11	248
00:00 - 00:30	7	4	5	15	4	13	26	15	6	5	3	5	108
00:30 - 01:00	1	2	2	5	1	4	15	-	2	2	-	2	36
01:00 - 01:30	1	-	-	-	-	-	14	1	-	-	-	-	16
01:30 - 02:00	-	-	-	1	-	-	4	1	1	-	-	-	7
02:00 - 02:30	-	-	-	-	-	-	3	-	-	-	-	-	3
02:30 - 03:00	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 - 03:30	-	-	-	-	-	-	-	-	-	-	-	-	-
03:30 - 04:00	-	-	-	-	-	-	-	-	-	-	-	-	-
04:00 - 04:30	-	-	-	-	-	-	-	-	-	-	-	-	-
04:30 - 05:00	-	-	-	-	-	-	-	-	-	-	-	-	-
05:00 - 05:30	-	-	-	-	-	-	-	-	-	-	-	-	-
05:30 - 06:00	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>24</b>	<b>16</b>	<b>15</b>	<b>37</b>	<b>21</b>	<b>38</b>	<b>123</b>	<b>59</b>	<b>20</b>	<b>39</b>	<b>8</b>	<b>18</b>	<b>418</b>

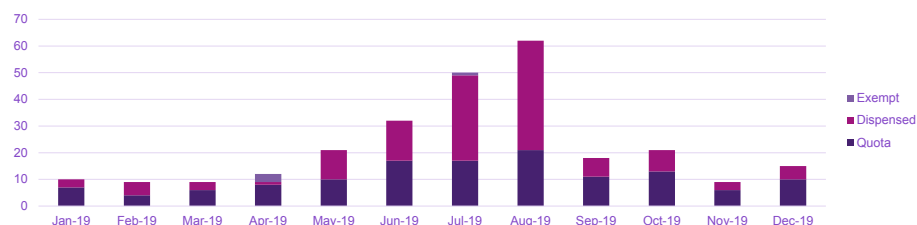




# Night flights

## Arrivals

Late running arrivals by quota, dispensed and exempt (Jan – Dec 2019)



Arrival Night Movements 2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Quota	7	4	6	8	10	17	17	21	11	13	6	10	130
Dispensed	3	5	3	1	11	15	32	41	7	8	3	5	134
Exempt	-	-	-	3	-	-	1	-	-	-	-	-	4
<b>Total</b>	<b>10</b>	<b>9</b>	<b>9</b>	<b>12</b>	<b>21</b>	<b>32</b>	<b>50</b>	<b>62</b>	<b>18</b>	<b>21</b>	<b>9</b>	<b>15</b>	<b>268</b>

### Notes

1. Dispensed flights: Sometimes, for reasons of disruption, emergency or passenger hardship, flights are allowed by DfT to operate outside the constraints of the movement limits.
2. Exempt flights: Aircraft are currently exempt from movement limits if their noise certification data is less than QC 0.25. Other exempt flights include State flights, head of Military, select VIP's.



## Arrivals

Arrival night movements by time window (Jan – Dec 2019)

Departure Night Movements 2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
23:30 - 00:00	5	4	6	7	11	25	30	36	14	9	4	11	162
00:00 - 00:30	1	3	2	2	5	4	11	16	2	9	3	2	60
00:30 - 01:00	2	1	1	-	3	1	6	10	2	2	-	1	29
01:00 - 01:30	-	-	-	-	1	2	-	-	-	-	-	-	3
01:30 - 02:00	-	1	-	1	-	-	-	-	-	1	-	-	3
02:00 - 02:30	-	-	-	-	-	-	2	-	-	-	-	-	2
02:30 - 03:00	-	-	-	-	-	-	-	-	-	-	-	-	-
03:00 - 03:30	-	-	-	-	1	-	-	-	-	-	-	-	1
03:30 - 04:00	-	-	-	1	-	-	1	-	-	-	-	-	2
04:00 - 04:30	2	-	-	1	-	-	-	-	-	-	2	1	6
04:30 - 05:00	208	200	193	32	62	101	168	116	109	96	254	240	1,779
05:00 - 05:30	174	164	201	175	185	165	138	160	160	196	183	171	2,072
05:30 - 06:00	136	128	135	110	128	97	70	96	112	122	110	122	1,366
<b>Total</b>	<b>528</b>	<b>501</b>	<b>538</b>	<b>329</b>	<b>396</b>	<b>395</b>	<b>426</b>	<b>434</b>	<b>399</b>	<b>435</b>	<b>556</b>	<b>548</b>	<b>5,485</b>

### Notes

1. Arrivals from 04:30 to 06:00 are scheduled early morning arrivals.





# Noise complaints

## Complaints statistics

### Overall statistics

655 people complained between October and December 2019, making over 16,000 complaints.

	Oct 2019	Nov 2019	Dec 2019	Total
No. of Complainants	371	322	233	655
No. of Complaints	5,685	5,159	5,871	16,715

### Top 10 Complainants

Complaints from the 10 people who complained the most times this quarter.

No. of Complaints	Percentage of Total Complaints	Percentage of Complainants
12,323	73.7%	1.5%

### Complainants who complained less than 5 times

Complaints from people who contacted Heathrow 5 times or less this quarter.

No. of Complaints	No. of Complainants	Percentage of Total Complaints	Percentage of Total Complainants
871	525	80.2%	5.2%

## Complaints by Local Authority (HCEB Boroughs)



### Map of Complainants

The size of bubble and numbers stated represent the total number of complainants from each Borough.



### Map of Complaints

The size of bubble and numbers stated represent the total number of complaints from each Borough.

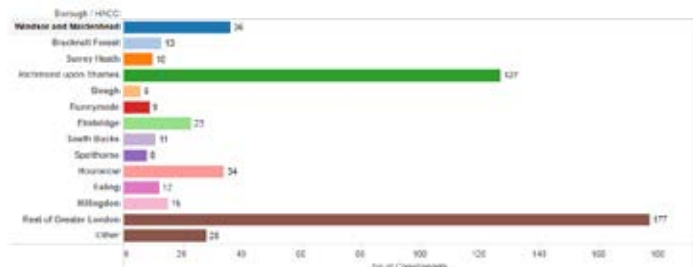




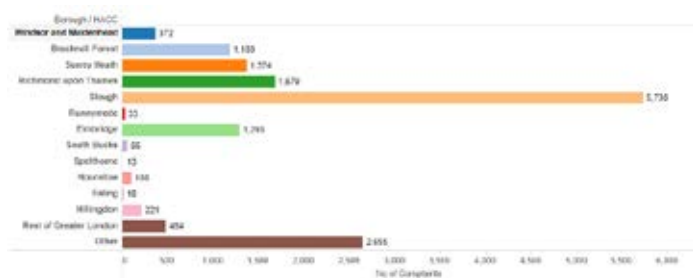
# Noise complaints

## Local Authority Statistics

Number of Complainants



Number of Complaints

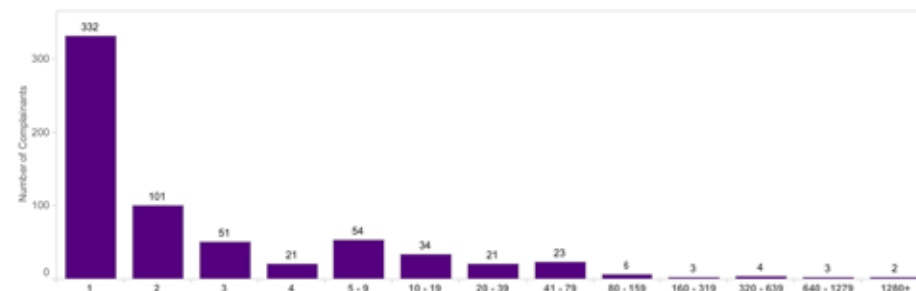


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## Distribution of Complaints

### How many times complainants contacted us

The histogram below plots how many people against how many times they contacted Heathrow this quarter. For example, it shows that 332 people complained once, that 51 people complained 3 times and that 2 people complained more than 1,280 times.



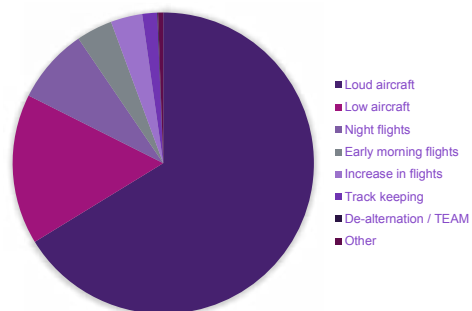
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# Noise complaints

## Noise Complaints by Category

Complaint Category	Proportion
Loud aircraft	66.3%
Low aircraft	16.2%
Night flights	8.1%
Early morning flights	3.9%
Increase in flights	3.4%
Track keeping	1.6%
De-alternation / TEAM	0.1%
Other	0.5%



Note: Multiple or duplicate complaints made by one person on one day are not included in this chart.

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# Air quality

## BACKGROUND

Heathrow Airport Ltd (HAL) began an air quality monitoring programme in 1993. Today HAL owns and operates one on-airport monitor and funds three other monitors around the airport. Data from these four continuous monitoring stations, as well as eight other continuous monitors operated by local authorities and DEFRA within 2km of the Airport, are shared and summarised on [heathrowairwatch.org.uk](http://heathrowairwatch.org.uk)

Air quality management is a key priority for HAL and we continue to work in partnership with our key stakeholders – especially local authorities and national Government – to reduce emissions from all sources in the area in order to meet the EU & UK limit values. The main pollutants of concern around Heathrow are measured at all stations – nitrogen dioxide (NO<sub>2</sub>) and particles (measured as PM<sub>10</sub> and PM<sub>2.5</sub>).



1 Heathrow Green Gates  
2 Heathrow LHR2

3 Heathrow Oaks Road  
4 London Harlington

## HEADLINES

Key information for this quarter is:

- There was no exceedance of the hourly NO<sub>2</sub> mean of 200µg/m<sup>3</sup> recorded in 2019 at a HAL monitoring station. At relevant locations, 18 exceedances are allowed per year before the limit value is breached for a given location.
- There were six exceedances of the PM<sub>10</sub> daily mean of 50µg/m<sup>3</sup> recorded in 2019 at LHR2 and Harlington monitoring sites and there were four at Green Gates and Oaks Road. At relevant locations, 35 exceedances are allowed per year before the limit value is breached for a given location.
- NO<sub>2</sub> concentrations increased only at three of the 12 monitoring sites in the wider area between 2018 and 2019. They decreased or remained the same at every other site.
- The annual mean NO<sub>2</sub> concentration remained below the annual mean EU limit value of 40µg/m<sup>3</sup> at nine of the 11 monitoring sites outside the airport boundary within 2km of Heathrow. NO<sub>2</sub> concentrations only remain above EU limits at Hillingdon and Hayes monitoring stations, north of the M4 (airport emissions from all sources contribute 16% and 6% of total NO<sub>x</sub> at these stations, respectively).
- The number of aircraft movements made by the newest aircraft (CAEP8) has increased to 34.7% at the end of Q4 and the percentage continues to rise (see Figure 2).

## YEAR-TO-DATE MONITORING

NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> are measured at HAL-funded monitoring sites. In addition, ozone is measured at the Harlington station. For a strict comparison against air quality objectives, data capture should be >90% over a calendar year. The hourly mean limit value for NO<sub>2</sub> is 200µg/m<sup>3</sup>, not to be exceeded more than 18 times per calendar year. The daily mean limit value for PM<sub>10</sub> is 50µg/m<sup>3</sup>, not to be exceeded on more than 35 days per calendar year. Table 1 provides a summary of measured data capture from HAL's four monitoring sites as well as 2019 exceedances of the hourly NO<sub>2</sub> and daily PM<sub>10</sub> limits. As represented in Table 1, data capture for all pollutants at all HAL-funded monitoring sites has been >90%, except for NO<sub>2</sub> at Oaks Road monitoring station. Figure 1 provides the NO<sub>2</sub> rolling 12-month means since 2010.

Table 2 provides a summary of the results from each station within 2km of Heathrow's boundary as well as the location type describing the environment. The data shown are provisional. Figure 2 presents annual average NO<sub>2</sub> measurement trends at sites either on or close to the airport.



# Air quality

Monitoring station	2019 mean ( $\mu\text{g}/\text{m}^3$ )			2019 Data capture (%)			Exceedances in 2019	
	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>2</sub> (hourly)	PM <sub>10</sub> (daily)
Heathrow LHR2	42	13	9	96	100	100	0	6
Harlington	31	15	10	99	97	97	0	6
Green Gates	31	13	8	99	98	98	0	4
Oaks Road	27	15	10	84	98	98	0	4

Table 1 Annual means, data capture and exceedances of hourly NO<sub>2</sub> and daily PM<sub>10</sub> at Heathrow funded monitoring sites in 2019

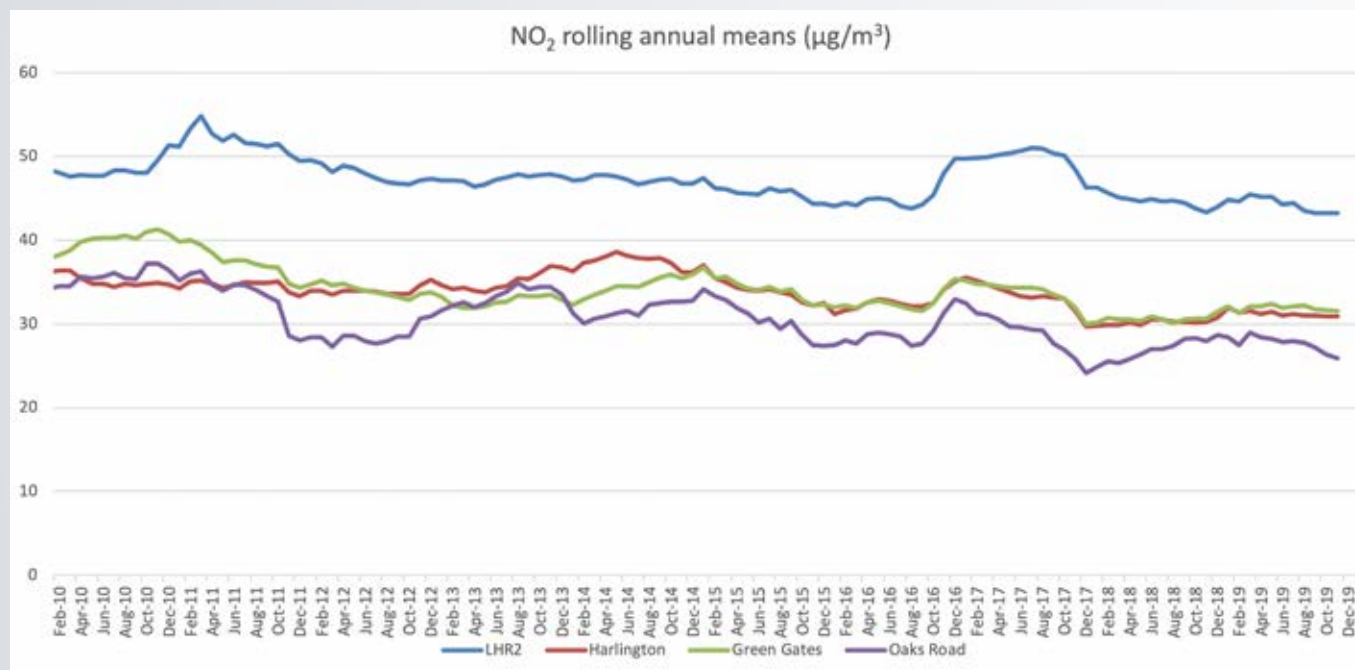


Figure 1 NO<sub>2</sub> rolling annual means at Heathrow funded sites since 2010 ( $\mu\text{g}/\text{m}^3$ )



# Air quality

Monitoring station	Owner	Location Type	2019 Average NO <sub>2</sub> (µg/m <sup>3</sup> )	Hourly NO <sub>2</sub> exceedances (hours)	Daily PM <sub>10</sub> exceedances (days)
Heathrow LHR2	Heathrow	Airport	42	0	6
Harlington	Heathrow	Urban Industrial	31	0	6
Green Gates	Heathrow	Airport	31	0	4
Oaks Road	Heathrow	Airport	27	0	4
London Hillingdon	Defra	Urban Background	45	0	0
Hayes	Hillingdon	Roadside	42	0	25
Harmondsworth	Hillingdon	Urban Background	23	0	0
Oxford Ave	Hillingdon	Urban Background	32	0	4
Sipson	Hillingdon	Urban Background	30	0	N/A
Hatton Cross	Hounslow	Roadside	28	0	7
Cranford	Hounslow	Suburban	27	0	7
Colnbrook	Slough	Suburban	24	0	3

Table 2 Summary of continuous monitoring sites within 2km of Heathrow and provisional results in 2019





# Air quality

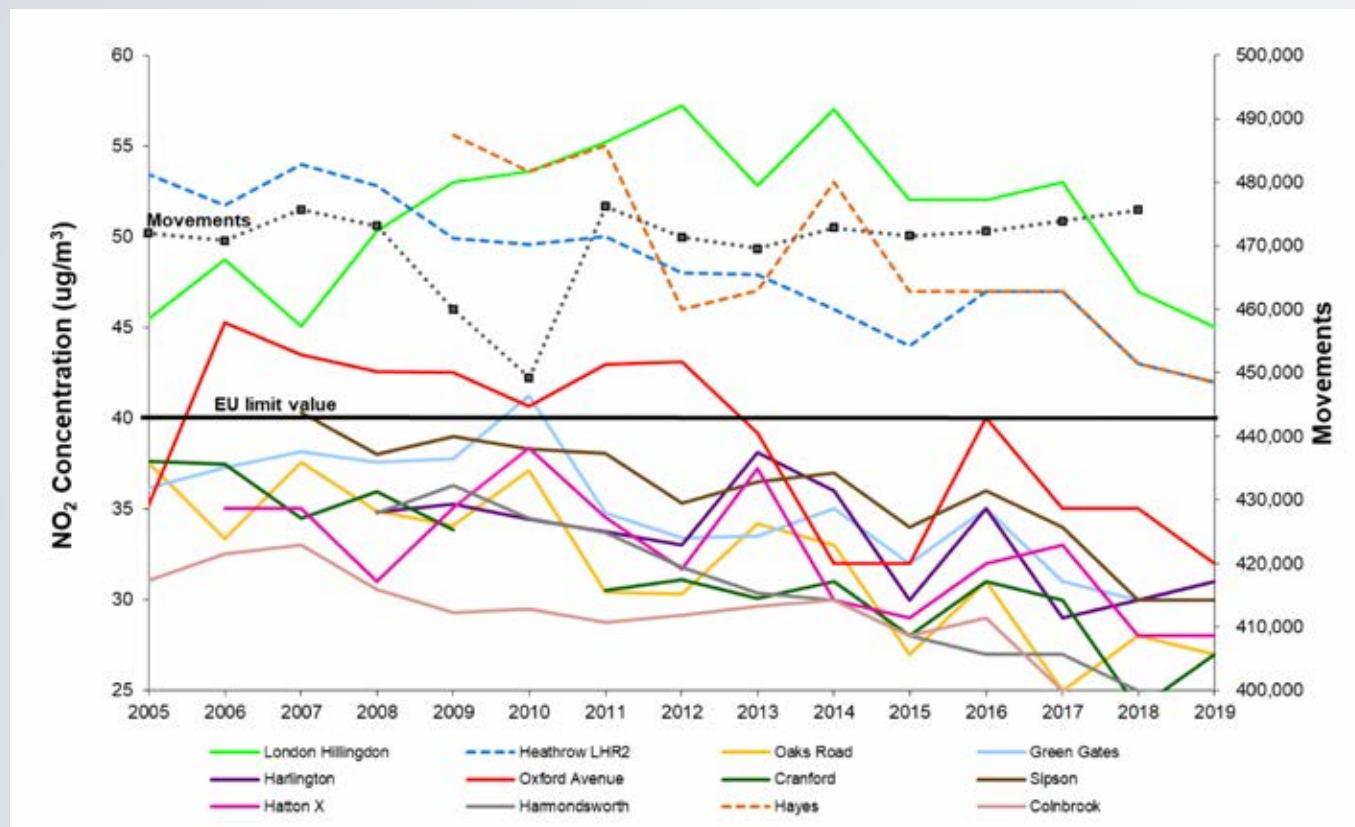


Figure 2 Measured annual average NO<sub>2</sub> concentrations around Heathrow since 2005

## Key information from this data is:

- Data for 2019 is still provisional
- NO<sub>2</sub> concentrations slightly increased only at three of the monitoring sites between 2018 and 2019 (Green Gates, Cranford and Harlington). They decreased or remained the same at every other site
- Two sites exceeded the NO<sub>2</sub> annual mean EU limit value outside of the airport boundary:
  - London Hillingdon is mainly affected by emissions from traffic on the M4. The NO<sub>2</sub> concentration recorded in 2019 was 45µg/m<sup>3</sup> (decrease from 47µg/m<sup>3</sup> in 2018). Modelling has shown that airport related emissions (including airport-related traffic) contribute 16% of measured NO<sub>x</sub> concentrations at this site;
  - The concentration at Hayes, located 1.9 km to the northeast of the airport, decreased from 43µg/m<sup>3</sup> to 42µg/m<sup>3</sup> between 2018 and 2019. Emissions at Hayes are also dominated by road traffic. Heathrow emissions contribute less than 6% of total NO<sub>x</sub> measured at this site; and
- LHR2 (blue dotted line), located on the airport next to the northern runway, has shown a general decline in concentration since installation in 1993, even though air transport movements (ATMs) have increased over the same period. Annual average NO<sub>2</sub> was 42µg/m<sup>3</sup> in 2019, showing a reduction in concentration compared to 2018. The EU limit values for ambient air quality are not applicable at LHR2 as members of the public do not have access to the site.



# Air quality

## NO<sub>2</sub> TREND ANALYSIS

The openair package<sup>1</sup> which provides a consistent set of tools for analysing and understanding air pollution data has been used to analyse trends in NO<sub>2</sub> concentrations measured by automatic monitors in the vicinity of (<5 km away from) Heathrow Airport in the period 2011 to 2019. The focus is on trends across all sites, or groups of sites with specific features, rather than an analysis of trends at specific sites. Figure 3 shows the analysis of NO<sub>2</sub> concentrations at all sites, and indicates that NO<sub>2</sub> concentrations are reduced by 2-3% per year over this period. The reductions are likely primarily driven by reducing vehicle emissions as newer vehicles that meet tighter emission standards replace older ones.

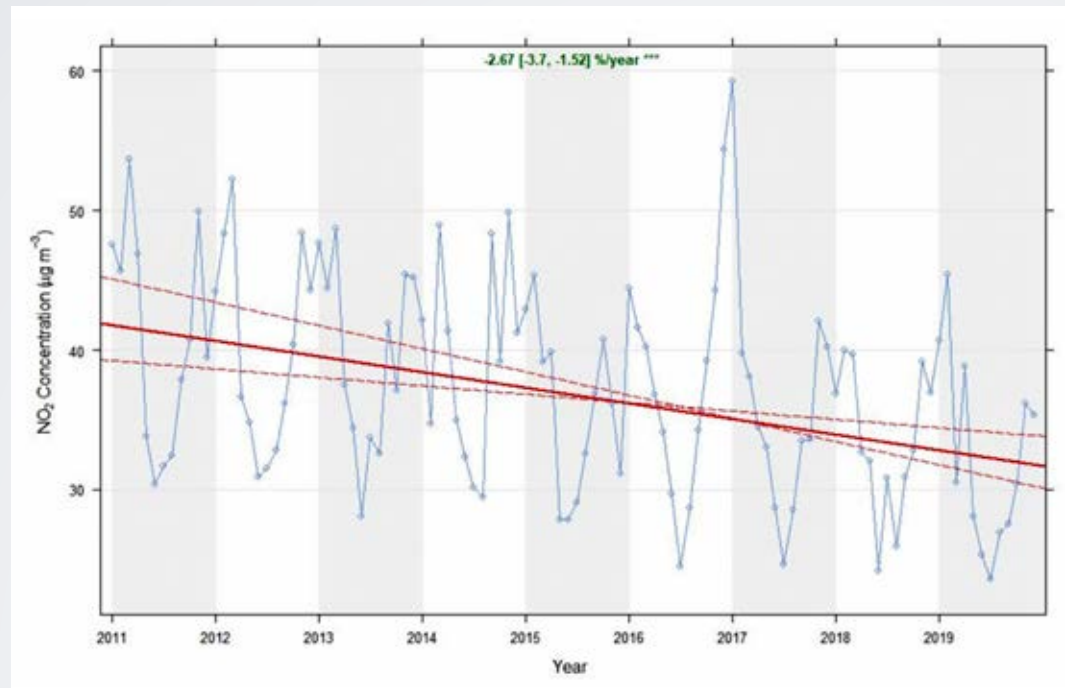


Figure 3 Analysis of NO<sub>2</sub> concentrations at all sites (2011-2019) (%/yr)

<sup>1</sup> <http://www.openair-project.org/>



# Air quality

## EMISSION REDUCTION EFFORTS

Heathrow successfully reduced annual ground-based nitrogen oxides (NO<sub>x</sub>) emissions by 430 tonnes (16%) between 2009 and 2013<sup>2</sup> as part of our commitment to playing our part in improving local air quality. These reductions have been achieved through a combination of efforts to reduce emissions from every major source, including aircraft, vehicles, and heating.

### CAEP standard of aircraft movements

Through its Committee on Aviation Environmental Protection (CAEP), the International Civil Aviation Organization (ICAO) sets new emission standards for aircraft engines – including for NO<sub>x</sub>. Engine models which were certified on or after 1 January 2014 must meet CAEP8, the latest standard for NO<sub>x</sub>.

Figure 4 shows the proportion of aircraft movements at Heathrow based by CAEP standards. The proportion of flights made by newer, cleaner CAEP8 aircraft increased from 28.6% in 2018 to 34.7% at the end of Q4 2019. The trend is expected to continue as airlines proceed in replacing their older, higher emission aircraft and Heathrow's NO<sub>x</sub> emission landing charges and engagement encourages the use of best-in-class aircraft.



Figure 4 Total aircraft movements since 2010 by CAEP standard

<sup>2</sup> [http://www.heathrowairwatch.org.uk/documents/Heathrow\\_Airport\\_2013\\_Air\\_Quality\\_Assessment\\_Detailed\\_Emissions\\_Inventory.pdf](http://www.heathrowairwatch.org.uk/documents/Heathrow_Airport_2013_Air_Quality_Assessment_Detailed_Emissions_Inventory.pdf)



# Heathrow Employment & Skills Academy

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## Heathrow Employment & Skills Academy

Q4 data

Candidate Interactions	Ealing				Hillingdon				Hounslow				Slough				Spelthorne				Other				Total			
Search Range Total	178				59				102				24				20				24				407			
<b>Total Year to Date</b>	466				482				678				262				246				609				2743			

Candidate Registrations	Ealing				Hillingdon				Hounslow				Slough				Spelthorne				Other				Total			
Search Range Total	272				289				398				111				48				757				1875			
<b>Total year to date</b>	1647				1854				2519				670				322				4921				11933			
JCP/EI/AIE/Other	29	120	117	6	24	125	135	5	26	196	166	10	12	41	55	3	4	22	21	1	69	262	402	24	164	766	896	49
<b>Total year to date</b>	147	778	681	41	152	827	820	55	227	1154	1091	47	71	250	328	21	24	123	169	6	532	1843	2422	124	1153	4975	5511	294

Candidate Referrals Into Pre-Employment Training	Ealing				Hillingdon				Hounslow				Slough				Spelthorne				Other				Total			
All Sectors	41				35				39				12				2				22				151			
<b>Total year to date</b>	156				150				270				45				12				141				774			
JCP/EI/AIE/Other	10	23	7	1	10	15	10	0	2	25	9	3	5	4	1	2	0	1	1	0	7	8	6	1	34	76	34	7
<b>Total year to date</b>	148				543				725				156				52				375				1999			

Candidates Not Completing Pre-Employment Training	Ealing				Hillingdon				Hounslow				Slough				Spelthorne				Other				Total			
Search Range Total	2				1				0				1				0				1				5			
<b>Total year to date</b>	9				6				27				3				0				12				57			

Candidate Accessing Employment	Ealing				Hillingdon				Hounslow				Slough				Spelthorne				Other				Total			
Retail + Travel Services	37				24				45				6				3				21				136			
Hospitality	4				5				9				2				1				1				22			
Aviation	0				0				0				1				0				1				2			
Construction	0				5				1				1				1				2				10			
Other	6				18				22				4				2				14				66			
Search Range Total	47				52				77				14				7				39				236			
JCP/EI/AIE/Other	4	24	17	2	9	27	15	1	7	43	24	3	4	5	3	2	0	2	5	0	5	16	17	1	29	117	81	9
<b>Total year to date</b>	189				230				296				51				32				145				943			
JCP/EI/AIE/Other	21	97	60	11	27	116	80	7	18	168	102	8	12	19	18	2	2	17	12	1	22	63	59	1	102	480	331	30



# Heathrow Employment & Skills Academy

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## Heathrow Employment & Skills Academy

Q4 data

Our Impact: Job Seeker's Allowance (JSA) Claimants	Ealing	Hillingdon	Hounslow	Slough	Spelthorne	Other	Total
<b>Total JSA Claimants</b>	<b>7530</b>	<b>3975</b>	<b>6150</b>	<b>2425</b>	<b>830</b>	<b>N/A</b>	<b>20910</b>
Residents attending IAG/PET as a percentage	0.11%	0.25%	0.16%	0.25%	0.00%	N/A	0.19%
Residents achieving employment as a percentage	0.05%	0.23%	0.11%	0.16%	0.00%	N/A	0.14%

Candidates Accessing Sustained Employment	Ealing	Hillingdon	Hounslow	Slough	Spelthorne	Other	Total
Search Range Total	28	45	58	5	5	19	160
<b>Total year to date</b>	<b>80</b>	<b>97</b>	<b>141</b>	<b>21</b>	<b>14</b>	<b>49</b>	<b>402</b>

SAS - Apprenticeships	Ealing	Hillingdon	Hounslow	Slough	Spelthorne	Other	Total
No. of Starts	1	5	2	1	0	3	12
<b>No. of Starts year to date</b>	<b>2</b>	<b>7</b>	<b>8</b>	<b>2</b>	<b>3</b>	<b>8</b>	<b>30</b>
No. of Achievers							0
<b>No. of Achievers year to date</b>							<b>0</b>
Total In-Learning*	2	6	7	2	3	8	28
No. of Starts - M + PP	1	5	2	1	0	3	12
<b>No. of Starts year to date - M + PP</b>	<b>2</b>	<b>6</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>22</b>

Apprenticeships	Ealing	Hillingdon	Hounslow	Slough	Spelthorne	Other	Total
No. of Starts	7	11	12	1	6	41	78
<b>No. of Starts year to date</b>	<b>12</b>	<b>26</b>	<b>34</b>	<b>12</b>	<b>11</b>	<b>53</b>	<b>148</b>
No. of Achievers	0	0	0	0	0	0	0
<b>No. of Achievers year to date</b>	<b>7</b>	<b>13</b>	<b>13</b>	<b>6</b>	<b>2</b>	<b>16</b>	<b>57</b>
Total In-Learning*	24	85	98	45	43	223	518
Lvl 2-3 Progression	0	0	0	0	0	0	0



# Q4 Traffic summary

- Christmas and New Year reunions fuelled passenger growth in December. More than 19.8 million passengers travelled through Heathrow during the last quarter of 2019. The airport recorded its busiest December ever, up 3.1% compared to the same time last year. This was also the strongest monthly increase recorded for 2019.
- In October East Asia saw significant growth driven by British Airways' new route to Kansai and increased load factors on other flights to Japan ahead of the Rugby World Cup. In November Delta and Virgin increased frequency to Boston and Detroit and started flights to Las Vegas.
- UK services saw the biggest surge in December (+10.6%) as many took advantage of Flybe's routes to Newquay and Guernsey during the festive season. The Middle East saw growth of 7.3%, likely boosted by fans flying out to Qatar to watch Liverpool win the FIFA Club World Cup. This was followed by the US (+7.1%), as many took advantage of new services to Pittsburgh, Las Vegas and Salt Lake City.
- More than 397,000 metric tonnes of cargo travelled through Heathrow in Q4 2019, with cargo growth led by Ireland (6.8%) the Middle East (+4.2%) and Africa (+2.8) in October.

## OCTOBER TRAFFIC FIGURES

### Terminal passengers (000s)

Market	Oct 2019	% Change	Jan to Oct 2019	% Change	Nov 2018 to Oct 2019	% Change
UK	432	0.6	4,029	-0.6	4,769	-1.7
EU	2,421	-1.1	23,217	-0.8	27,422	0.0
Non-EU Europe	479	-2.2	4,799	-0.4	5,702	0.0
Africa	292	5.9	2,919	7.4	3,540	7.8
North America	1,677	2.2	15,865	3.6	18,656	3.8
Latin America	115	3.0	1,154	2.3	1,376	2.8
Middle East	643	6.4	6,394	-0.3	7,644	-0.3
Asia / Pacific	933	-2.2	9,576	-0.8	11,454	-0.5
<b>Total</b>	<b>6,992</b>	<b>0.5</b>	<b>67,954</b>	<b>0.7</b>	<b>80,564</b>	<b>1.0</b>

### Air transport movements

UK	3,743	6.8	33,792	3.0	39,727	1.1
EU	18,232	-2.6	176,741	-1.3	210,246	-0.9
Non-EU Europe	3,647	-3.4	36,515	0.2	43,779	0.1
Africa	1,263	7.1	12,616	7.5	15,316	8.1
North America	7,262	0.3	70,189	0.9	83,212	0.8
Latin America	508	0.8	5,035	1.3	6,060	2.3
Middle East	2,670	4.3	25,364	-1.0	30,404	-1.2
Asia / Pacific	3,922	-2.1	39,354	1.0	47,395	1.7
<b>Total</b>	<b>41,247</b>	<b>-0.6</b>	<b>399,606</b>	<b>0.1</b>	<b>476,139</b>	<b>0.2</b>

### Cargo (metric tonnes)

UK	55	-18.6	486	-41.9	566	-44.9
EU	9,013	-13.8	79,719	-15.7	95,925	-16.4
Non-EU Europe	4,943	-3.4	47,626	0.3	57,284	0.9
Africa	8,245	2.8	78,092	5.9	94,719	6.1
North America	47,215	-10.6	471,163	-8.2	574,078	-7.6
Latin America	4,591	-4.9	45,680	7.2	55,464	7.0
Middle East	23,903	4.2	215,282	0.6	258,305	-1.1
Asia / Pacific	39,819	-13.1	388,905	-9.2	475,435	-8.0
<b>Total</b>	<b>137,784</b>	<b>-8.2</b>	<b>1,326,952</b>	<b>-6.2</b>	<b>1,611,775</b>	<b>-5.9</b>



# Q4 Traffic summary

## NOVEMBER TRAFFIC FIGURES

### Terminal passengers (000s)

Market	Nov 2019	% Change	Jan to Nov 2019	% Change	Dec 2018 to Nov 2019	% Change
UK	415	8.7	4,444	0.2	4,802	-0.4
EU	2,090	-0.3	25,308	-0.7	27,415	-0.3
Non-EU Europe	422	-3.0	5,222	-0.6	5,689	-0.5
Africa	285	-4.3	3,204	6.3	3,528	6.6
North America	1,417	5.6	17,282	3.8	18,732	3.8
Latin America	111	5.9	1,265	2.6	1,382	2.9
Middle East	613	10.1	7,007	0.6	7,700	0.5
Asia / Pacific	880	-2.1	10,456	-0.9	11,436	-0.8
<b>Total</b>	<b>6,234</b>	<b>2.0</b>	<b>74,188</b>	<b>0.8</b>	<b>80,684</b>	<b>0.9</b>

### Air transport movements

UK	3,535	16.2	37,327	4.2	40,219	3.2
EU	16,344	-3.0	193,085	-1.4	209,746	-1.1
Non-EU Europe	3,494	-3.1	40,009	-0.1	43,669	0.1
Africa	1,257	-4.3	13,873	6.3	15,260	6.8
North America	6,492	2.2	76,681	1.0	83,349	1.0
Latin America	473	-4.4	5,508	0.8	6,038	1.4
Middle East	2,557	5.9	27,921	-0.4	30,547	-0.3
Asia / Pacific	3,793	-3.5	43,147	0.6	47,257	1.0
<b>Total</b>	<b>37,945</b>	<b>-0.1</b>	<b>437,551</b>	<b>0.1</b>	<b>476,085</b>	<b>0.3</b>

### Cargo (metric tonnes)

UK	52	24.9	538	-38.7	577	-40.5
EU	7,715	-10.1	87,433	-15.3	95,056	-15.4
Non-EU Europe	5,047	-4.0	52,672	-0.1	57,076	-0.2
Africa	7,988	-8.5	86,080	4.4	93,981	4.7
North America	47,707	-8.4	518,870	-8.2	569,715	-7.8
Latin America	4,479	-12.8	50,159	5.1	54,805	4.7
Middle East	22,838	3.9	238,120	0.9	259,167	0.4
Asia / Pacific	38,502	-14.9	427,407	-9.8	468,679	-9.2
<b>Total</b>	<b>134,328</b>	<b>-8.6</b>	<b>1,461,280</b>	<b>-6.4</b>	<b>1,599,056</b>	<b>-6.2</b>



# Q4 Traffic summary

## DECEMBER TRAFFIC FIGURES

### Terminal passengers (000s)

Market	Dec 2019	% Change	Jan to Dec 2019	% Change	Jan 2019 to Dec 2019	% Change
UK	396	10.6	4,840	0.9	4,840	0.9
EU	2,153	2.2	27,461	-0.5	27,461	-0.5
Non-EU Europe	472	1.0	5,693	-0.5	5,693	-0.5
Africa	310	-4.0	3,515	5.3	3,515	5.3
North America	1,553	7.1	18,835	4.1	18,835	4.1
Latin America	117	0.1	1,382	2.3	1,382	2.3
Middle East	743	7.3	7,750	1.2	7,750	1.2
Asia / Pacific	951	-2.9	11,407	-1.1	11,407	-1.1
<b>Total</b>	<b>6,696</b>	<b>3.1</b>	<b>80,884</b>	<b>1.0</b>	<b>80,884</b>	<b>1.0</b>

### Air transport movements

UK	3,403	17.7	40,730	5.2	40,730	5.2
EU	16,192	-2.8	209,277	-1.5	209,277	-1.5
Non-EU Europe	3,552	-3.0	43,561	-0.3	43,561	-0.3
Africa	1,354	-2.4	15,227	5.5	15,227	5.5
North America	6,729	0.9	83,410	1.0	83,410	1.0
Latin America	496	-6.4	6,004	0.2	6,004	0.2
Middle East	2,661	1.3	30,582	-0.3	30,582	-0.3
Asia / Pacific	3,923	-4.5	47,070	0.1	47,070	0.1
<b>Total</b>	<b>38,310</b>	<b>-0.6</b>	<b>475,861</b>	<b>0.0</b>	<b>475,861</b>	<b>0.0</b>

### Cargo (metric tonnes)

UK	49	25.3	587	-36.0	587	-36.0
EU	6,961	-8.7	94,395	-14.8	94,395	-14.8
Non-EU Europe	4,332	-1.6	57,004	-0.3	57,004	-0.3
Africa	7,263	-8.1	93,342	3.3	93,342	3.3
North America	46,127	-9.3	564,998	-8.3	564,998	-8.3
Latin America	4,202	-9.6	54,361	3.8	54,361	3.8
Middle East	20,953	-0.4	259,073	0.8	259,073	0.8
Asia / Pacific	36,284	-12.1	463,691	-10.0	463,691	-10.0
<b>Total</b>	<b>126,171</b>	<b>-8.4</b>	<b>1,587,451</b>	<b>-6.6</b>	<b>1,587,451</b>	<b>-6.6</b>



**QUARTERLY REPORT** OCTOBER–DECEMBER 2019 **TO**  
HEATHROW **COMMUNITY ENGAGEMENT** BOARD

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**Heathrow**