

LACC Comments in response to Airports Commission document

The Heathrow airline community welcomes the opportunity to respond to the latest Airport Commission (AC) consultation on Air Quality Assessment.

As recognised by the AC, airport-related activity is only responsible for a minority of emissions around Heathrow. Nevertheless the airline community is already supporting a number of initiatives to improve air quality and recognises the need to demonstrate that legal obligations can be met.

Many parties and all sources must be considered in order to reduce total emissions, in particular as some of the most cost-effective emissions abatement opportunities may be related to other sources (or instance, clean and efficient surface access to airports).

The AC has identified a range of mitigations to meet local, national and European standards for air quality. The LACC's summary position on these is:

- A coordinated surface access strategy is needed in order to increase the proportion of airport-related journeys using sustainable transport modes. Surface access schemes benefit the wider area and should not lead to net increases in airport charges.
- The airline community does not believe that increasing NOx related airport charges is an effective way of incentivising improved aircraft emissions performance. Airlines are already heavily incentivised by other operational measures and economic costs to invest in new aircraft with improved environmental performance in relation to fuel burn, noise and emissions.
- Airlines support use of sustainable fuels including biofuels. The Sustainable Aviation road-map set out the potential for these fuels.
- Airlines support careful development of operational measures such as single engine taxi and steeper approaches subject to completion of feasibility trials and compliance with CAA safety standards
- Airlines are working with the airport owner, ground handlers and other entities to reduce emissions via ground infrastructure planning and investment including cleaner vehicles and preconditioned air for aircraft
- Airlines support the existing Greater London Low Emission zone which is already planned to implement tighter limits this year.
- However a Congestion Zone applying to Heathrow only would increase costs for passengers and risk diverting traffic and emissions to other airports.

Our more detailed response to the questions posed by the Airport Commission can be found below.

[REDACTED]

[REDACTED] London (Heathrow) Airline Consultative Committee (LACC)

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29/5/2015

[REDACTED]

“Module 6: Air Quality Local Assessment Detailed Emissions Inventory Dispersion Modelling (May 2015)”

Q5: Do you have any comments on how the Commission has carried out its appraisal of specific topics (as defined by the Commission’s 16 appraisal modules), including methodology and results?

Q6: Do you have any comments on the Commission’s sustainability assessments, including methodology and results?

Q7: Do you have any comments on the Commission’s business cases, including methodology and results

Gatwick 2R	Heathrow NWR	Heathrow ENR
Measure 1: Achieving high public transport access and congestion-free road access.	Measure 1: Achieving an increase in public transport access from 40% to >50% to ensure total road passenger road vehicle trips to and from the airport do not increase relative to the baseline.	Measure 1: Modal shift of 38-50% of passengers from cars to public transport access to the airport.
<ul style="list-style-type: none"> A coordinated and well integrated surface access strategy between airport, local authorities and national government is essential in order to provide an efficient and effective public transport service for both passengers and staff. The provision of an integrated public transport remains the responsibility of government and must not result in a net increase in airport user charges for airlines. Consideration should be given to the requirements for each airport user group including passengers, airport, airline and control authorities staff with sufficient frequency and coverage of services for the opening hours and the shoulder period for all airport employees. Planning for such services requires a holistic approach between many agencies including appropriate and adequate provision of such services including offsite car parking facilities for airport staff to encourage uptake of public transport and shuttle services. 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Measure 2: Concentrating future aircraft activities in the midfield area which is remote from populated areas.	Measure 2: The airport is designed to minimise the distances that aircraft taxi between stands and runways.	Measure 2: Maximising distance between the new road sections, car parks and other key emissions sources from future sensitive receptors.
<ul style="list-style-type: none"> Modern airport design recognises this requirement by various features such as the “Toast Rack” with optimised access to the runway infrastructure. 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
		Measure 3: Incorporating ventilation systems within the M25 tunnel to reduce build-up of emissions at tunnel portals.
<ul style="list-style-type: none"> No comment 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
		Measure 4: Use of the extended runway to allow a proportion of

		the take-off emissions (on the Heathrow ENR) to be well away from the airport boundary.
<ul style="list-style-type: none"> No comment 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Measure 3: Encouraging airlines to shut down an engine during taxiing.	Encouraging airlines to shut down an engine during taxiing.	Encouraging airlines to shut down an engine during taxiing.
<ul style="list-style-type: none"> The Sustainable Aviation document “Reducing the Environmental Impacts of Ground Operations and Departing Aircraft - An Industry Code of Practice” has identified this technique as delivering benefits in terms of both NOx emissions and fuel burn reduction. The benefit of using Reduced Engine Taxiing on arrival is a reduction of between 10-30% in NOx for twin engine aircraft and 15-25% for four engined aircraft in relation to ground emitted NOx. However, as stated in the Airport Commission assessment, it is important to note that use of the technique must always be subject to safety and operational resilience considerations as well as aircraft system limitations. As a result, adoption of this procedure varies by fleet, operator and airport. 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Measure 4: Supporting ongoing technological developments and innovation, including industry research into the use of alternative fuels for aircraft.	Supporting ongoing technological developments and innovation, including industry research into the use of alternative fuels for aircraft.	Supporting ongoing technological developments and innovation, including industry research into the use of alternative fuels for aircraft.
<ul style="list-style-type: none"> The Sustainable Aviation (SA) Biofuels Roadmap shows that biofuels have an important role to play in reduction of carbon emissions related to aviation and their adoption will contribute to delivering national and global carbon reduction commitments. Work undertaken by SA highlighted the UK could have between 5-12 sustainable fuel plants by 2030 providing up to £265m in gross added value to the UK economy. However implementation of these facilities is dependent on the UK aviation industry working with the government to create favourable conditions for innovation and technological development in the field of advanced fuels for aviation. 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
NOx emissions charging to encourage airlines to use the cleanest aircraft.	Measure 3: NOx emissions charging to encourage airlines to use the cleanest aircraft.	Measure 5: NOx emission charging to encourage airlines to use the cleanest aircraft and encouragement to use optimised thrust take-off techniques.
<p>The Heathrow airline community does not believe that increasing NOx related airport charges will incentivise improved aircraft emissions performance. Furthermore there is no research or evidence based on past experience to demonstrate a causal link between charges and aircraft choices.</p> <p>On the contrary, a comparison of the fleet evolution at LHR and other similar airports without LAQ charges shows that trends are identical, with older aircraft being withdrawn from operations at similar rates. In reality, fleet choices are really driven by the normal fleet renewal process and other consideration like capacity and fuel efficiency.</p> <p>Airlines are also already heavily incentivised by other operational measures and economic costs to invest in new aircraft with improved environmental performance in relation to fuel burn, noise and emissions.</p>		

<ul style="list-style-type: none"> Airlines continually invest significant resources in fleet renewal to achieve fuel burn, noise and emissions reductions. However, there is long lead time between aircraft procurement decisions and introduction of new aircraft into the fleet. Airlines are unable to react quickly to increased charges in terms of overall fleet mix. In addition, significant increases in fixed costs associated with airport charges will only increase the return to airport operators and reduce the ability of airlines to invest in new aircraft. These unintended consequences will have a negative impact on a sustainability approach to aviation. 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Operate 2R airport with a steeper glide slope to reduce the impact of aircraft approach emissions at ground level.	Measure 4: Operate 3R airport with a steeper glide slope to reduce the impact of aircraft approach emissions at ground level.	Operate ENR with a steeper glide slope to reduce the impact of aircraft approach emissions at ground level.
<ul style="list-style-type: none"> The adoption of a steeper glide slope is another technique which can be trialled once all safety, operational resilience and airspace considerations have been addressed. However the beneficial effect on ground level emissions concentrations is likely to be minimal. Furthermore the use of displaced thresholds may also be beneficial and is dependent on provision of appropriate runway infrastructure, new operating procedures and compliance with all safety requirements 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Introduce a management process designed to improve airport efficiency and reduce hold times and delays through cooperation of pilots, airlines, ground crew and air traffic control.	Measure 5: Airport Collaborative Decision Making (A-CDM) is a management process designed to improve airport efficiency and reduce hold times and delays through cooperation of pilots, airlines, ground crew and air traffic control.	Measure 8: Minimising aircraft emissions through the development of take-off/landing and taxiing schedules to reduce hold times on the apron and taxiway.
<ul style="list-style-type: none"> Many European airports including Heathrow has introduced A-CDM. 4 This system makes a contribution towards improving local air quality by enhancing the operational performance and associated fuel burn during take-off and landing and in the taxi phase (e.g. improved taxi efficiency through A-CDM). 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Install Fixed Electrical ground Power (FEGP) and Pre Conditioned Air (PCA) to all future aircraft stands to reduce the need for APU usage.	Measure 6: Install Fixed Electrical ground Power (FEGP) and Pre Conditioned Air (PCA) to all future aircraft stands to reduce the need for APU usage.	Measure 6: The provision of Fixed Electrical Ground Power (FEGP) and Pre Conditioned Air (PCA) to reduce the need for APU usage.
<ul style="list-style-type: none"> The Heathrow airline community supports the provision of FEGP and PCA at all relevant airports and the related terminals. However a shortfalls in some infrastructure provisioning exists and needs to be included in the relevant Master Plans. Without appropriate, efficient, effective and well maintained FEGP and PCA infrastructure provided across an entire airport campus, compliance with more stringent APU usage restrictions cannot be achieved. Furthermore airport operators need to ensure that the use 		

of FEGP and PCA is incentivised to ensure a maximum uptake of FEGP/PCA and a reduction of APU use by operators.		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Improve the infrastructure for Ultra Low Emission Vehicles (ULEV) such as electric charging points and hydrogen fuel stations, both airside and landside.	Measure 7: Improve the infrastructure for Ultra Low Emission Vehicles (ULEV) such as electric charging points and hydrogen fuel stations, both airside and landside.	Measure 7: Improve infrastructure for Ultra Low Emission Vehicles (ULEVs) such as electrical charge points and hydrogen fuel stations, both airside and landside.
<ul style="list-style-type: none"> Significant investment will need to be made by all operators in order to achieve a transition to ULEV fleet capability by 2030. This requires a clear and collaborative long term airport development strategy and investment in ULEV infrastructure to enable airlines to develop a parallel airside fleet renewal plan, particularly if an 80% adoption of NRMM ULEVs in the airside fleet is to be achieved. Incentives by the Government will ensure a more rapid uptake than that planned using the current amortisation period The use of sustainable biodiesel in airside fleets alongside the adoption of an increasing proportion of ULEV vehicles to 2030 will also bring benefits 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
Introduce an airport congestion charge for people travelling to the airport. Possible exemptions for the greenest vehicles.	Measure 8: Introduce an airport congestion charge for people travelling to the airport. Possible exemptions for the greenest vehicles.	Introduce an airport congestion charge for people travelling to the airport, with possible exemptions for the greenest vehicles.
<ul style="list-style-type: none"> The introduction of a congestion charge for passengers and staff will add substantial costs especially for those users who lack access to a convenient, affordable and reliable public transport network. Furthermore passengers are increasingly price sensitive and there is a risk of introducing sub-optimum behaviour and unintended consequences if a congestion scheme has a limited application to a certain airport. Consequently, there is no support for such a scheme. 		
Gatwick 2R	Heathrow NWR	Heathrow ENR
	Implementation of an Ultra-Low Emissions Zone (ULEZ)	Implementation of an Ultra-Low Emissions Zone
<ul style="list-style-type: none"> Heathrow is already included in the London Low Emission zone, which aims to reduce pollution by discouraging the use of older diesel vehicles. Emissions standards were tightened in 2012, and a further improvement in required emissions levels will apply to buses from 2015. Emission standards for new vehicles are being tightened significantly from 2015, so that vehicle fleets will be substantially cleaner in 2025 than now. Any scheme for ULEZ needs to be fully integrated with all airports to avoid sub-optimum behaviour and unintended consequences 		

Gatwick 2R	Heathrow NWR	Heathrow ENR
		Measure 9: Ensuring additional emissions from heat and power generation plant are mitigated.

- No comment