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25 January 2015

Airports Commission Consultation

By email: airports.consultation@systra.com

Dear Sirs

We wish to make the following observations set out below in relation to the current consultation. We hope that they will be of assistance to the Commission in its assessment of the options for meeting the UK's international connectivity needs, including their economic, social and environmental impact and the recommendation(s) the Commission for the optimum approach to meeting those needs.

Q1: What conclusions, if any, do you draw in respect of the three short-listed options? In answering this question please take into account the Commission's consultation documents and any other information you consider relevant. The options are described in section three.

In deciding which option to recommend the Commission will appreciate that its assessment of the UK's international connectivity needs is required to include each option's economic, social and environmental impact.

The Commission has acknowledged that each option meet's the Commission's assessment of need criteria and will provide economic benefits and employment opportunities.

Consequently, the key factor for the Commission is the assessment of any other relevant economic elements as well as the fundamental considerations relating to social and environmental impact.

A summary of some of the more important elements of these vital considerations are:

		Gatwick 2nd Runway	Heathrow Northern Extension	Heathrow NW Runway
Cost (excl SAC)		£9.3bn	£13.5bn	£18.6bn
	Equity	£3.7bn	£5.1bn	£8.4bn
	Debt	£14.3bn	£24.9bn	£29.9bn

Surface Access Costs		£0.5bn	£6.3bn	£5.7bn
Aircraft Movements		560,000 Increase of 280,000 from 280,000	700,000 Increase of 220,000 from 480,000	740,000 Increase of 260,000 from 480,000
Passenger Charges		£15/18pp Peak £23pp Currently £9pp (100%>)	£27/28pp Peak £30pp Currently £20pp (40%>)	£28-29pp Peak £32pp Currently £20pp (45%>)
Area for Airport		624ha	724ha	569ha
Area for Surface Access		78ha	330ha	294ha
Area for Flood Storage		0	60ha	43ha
Green Belt Lost (Land Take)		9ha	238ha	431ha
Airport scheme in Green Belt		60ha	580ha	694ha
Houses to be demolished		168	242	783
Industrial & Business Area lost		0	74ha	0
Supporting infrastructure needed to support additional housing. Unfunded		Additional form entries in local schools and two additional GPs per local authority	Additional schools (42 primary and 5 secondary) across 14 local authorities, two additional health centres (14 GPs) and two primary care centres per local authority	Additional schools (50 primary and 6 secondary) across 14 local authorities, two additional health centres (14 GPs) and two primary care centres per local authority
Main Infrastructure Alterations		Brighton Main Line Lack of resilience South of East Croydon M23 J8-10 Widening Airport Way	Southern Rail Access to Staines M4 J2-4b Widening M4 spur Heathrow Tunnel capacity and spur access A4 access M25 access and	Southern Rail Access to Staines M4 J2-4b Widening M4 spur Heathrow Tunnel interchange A4 realignment and access M25 access and

			tunnel	tunnel
Noise	Current people affected LAeq,16hr>54	10,000	620,00	620,000
	2030, people affected LAeq,16hr>54 DS High traded	31,000 (Current 9,500)	720,000 (Current 620,000)	520,000 (Current 620,000)
	2030, people affected Ldn,>55 DS High traded	34,000 (Current 12,000)	900,000 (Current 760,000)	680,000 (Current 760,000)
		>people affected on all metrics but<< Heathrow currently		
Safety and Reduced Efficiency		No adverse impacts	Conflict with aircraft departing Northern Runway when aircraft required to take off from Southern Runway Northolt	No adverse impacts Northolt
Other		No flood risk	Flood Risk	Flood Risk
		No increased bird strike risk	Significantly increased Bird Strike Risk from proximity to Queen Mary Reservoir and other water sources	Increased Bird Strike Risk from proximity to Queen Mary Reservoir
		No airline or grouping with market power	50% Heathrow flights by IAG and alliance partners	50% Heathrow flights by IAG and alliance partners
		No significant loss of community cohesion identified	Less loss of community cohesion identified than Heathrow NW Runway	Very significant loss of community cohesion
		Not applicable	Not applicable	Relocation of waste energy plant
		No damage to heritage assets or loss of tourism	Damage to Heritage Assets (Windsor Castle, Eton	Damage to Heritage Assets (Windsor Castle, Eton

		income	College, Runneymede) and loss of tourism income	College, Runneymede) and loss of tourism income
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It is apparent from these factors that there are very significant negative factors relating to cost, risk, social and environmental considerations that adversely impact on each of the Heathrow options. These negative impacts have substantial disadvantages that collectively outweigh any potential benefits from the Heathrow options. The only credible and logical conclusion is that the required additional runway must be situated at Gatwick.

Q2: Do you have any suggestions for how the short-listed options could be improved, i.e. their benefits enhanced or negative impacts mitigated? The options and their impacts are summarised in section three.

No comment

Q3: Do you have any comments on how the Commission has carried out its appraisal? The appraisal process is summarised in section two.

Surface Access Appraisal Costs

It is regrettable that the Commission has left open whether, and the extent to which, Surface Access Appraisal Costs will be the responsibility of the promoters or the public purse. This is fundamental to a proper assessment of the amount of equity and debt that each promoter will have to raise and therefore each promoter's ability to finance their project.

Conversely, if the costs are to be financed by the public purse this should be made clear in the interests of transparency and the wider public interest. It is also necessary so that an informed assessment can be made as to whether such funding would be permissible under EU State Aid Rules.

This issue is especially relevant because of the difference in scale between the Surface Access Appraisal Costs for the two Heathrow options (£5.7bn – North Western Runway) (£6.3bn – Northern Extension Runway) in comparison with the Gatwick Second Runway Option (£0.5bn).

Sustainability

The way the Commission appears to be approaching the complex and important issue of sustainability is a cause for concern. If it is the Commission's intention to base its conclusions on sustainability on the criteria stated at para 5.1 of each of the Business Case and Sustainability Assessments then that would be wrong. That is a narrow and partial interpretation of the concept of sustainability. That single paragraph is providing overview guidance on the 219 paragraphs of National Planning Policy Framework. That document serves a fundamentally different purpose from the Commission's terms of reference.

Sustainability is a much broader concept than the Commission has considered.

Thus, international and national bodies have set out broad principles of sustainable development. Resolution 42/187 of the United Nations General Assembly defined sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs.

The UK Sustainable Development Strategy *Securing the Future* sets out five 'guiding principles' of sustainable development: living within the planet's environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.

The Commission is required to apply these broader, and more widely accepted, concepts of sustainability and to give due weight to them as required by it is terms of reference.

The Commission has given undue weight in its sustainability assessments to uncertain, non-specific, largely unquantified, untestable and unenforceable mitigation measures.

Furthermore, the sustainability assessments have been carried out with a silo approach. What is missing is a comparative assessment of the relative sustainability of the three options.

Q4: In your view, are there any relevant factors that have not been fully addressed by the Commission to date?

4.1 Noise

- 4.1.1 Noise from Heathrow already affects 760,000 people (Ldn,>55) . Gatwick 12,000 on the same basis. This would increase to 900,000 (Heathrow Northern Runway Extension) but "only" 34,000 if a second runway is build at Gatwick. Heathrow North Western Runway's supposed reduction to 680,000 people, even if correct, would still condemn more than 20 times the number of people to the tyranny of noise pollution than the Gatwick option.

It is difficult to see how an increase in aircraft movements from 480,000 to 740,000 per year (Heathrow North Western Runway) could result in anything other than the lives of many hundreds of thousands of people being blighted. That's just common sense – irrespective of what the noise contour maps and claims of quieter aircraft in the future are claimed to demonstrate.

Great weight needs to be given to these important considerations.

- 4.1.2 The Commission has failed to explain why it has used the Aviation Policy Forum's metric of 57dB as the appropriate metric for the onset of significant annoyance rather than the WHO metric of 50 dB LAeq,16h representing the onset of moderate annoyance or even 55dB LAeq,16h for the prevention of significant annoyance.

It is inappropriate for the Commission to place so much weight on the possible introduction of Second Generation Aircraft and adopt a -0.1dB pa compounded improvement in noise emissions (Appendix A Baseline Noise Report). This is despite the fact that, as the Commission acknowledges, these aircraft are still under development and that their technology and design has yet to be realised. This is especially important since the Commission observes at Appendix A para A1(a) Baseline Noise Report that noise predictions are especially sensitive to aircraft fleet mix.

Furthermore, the Commission at Appendix A para A1(c) Baseline Noise Report states that:

“As a result of technological advances, aircraft produced today are considerably quieter than those of 50 years ago, and this trend is expected to continue.”

It is unclear why the Commission considers that such historic trends are an accurate predictor of future developments. It has failed to identify with sufficient precision the trend that it is seeking to rely on and the extent to which it has taken the trend into account. It is unclear why the Commission considers that an unspecified date from around the time of early versions of the Boeing 707, and before the introduction of the Boeing 747, is relevant.

- 4.1.3 No account has been taken of the greatly increased impact of noise from low flying aircraft arriving/departing Heathrow under each of the two options on national heritage assets such as Windsor Castle (the largest and oldest inhabited castle in the world) which attract over a million visitors annually, Eton College and Runnymede. This has two elements: the impact on tourism and the impact on state events (which also attract tourists).

Direct expenditure generated by tourism in RBWM in 2013 was £453.79 million. This tourism related expenditure is estimated to have supported 6,976 FTE jobs in Windsor & Maidenhead. Many of these jobs are part-time or seasonal in nature and translate into an estimated 9,469 Actual Jobs. (Economic Impact of Tourism in Windsor & Maidenhead 2013 (Tourism South East Research Unit)).

Under the Heathrow options the proposed runways will be 1.5km (North Western Runway) and 3 km (Northern Runway Extension) further west than at present. Consequently aircraft using these runways will fly over these heritage sites at a lower height and generate more noise.

There is no indication that such matters have been considered let alone that the heritage, social and economic considerations have been given due weight.

- 4.1.4 No proper analysis has been undertaken on, and insufficient weight has been given to, the very high levels of uncertainty regarding the flight paths of aircraft arriving/departing Heathrow and the greater number of people that will be adversely impacted by modifications to existing flight paths. These will be but a small sub-set of the many communities that may be adversely impacted by flight path changes for the first time if either of the Heathrow options is implemented. Their very real concerns appear to have been airbrushed out of the Commission's analysis either on the basis that they are too uncertain or will occur on a "Do Nothing" Strategy. Such insensitivity and arrogance is inexcusable and inconsistent with the Commission's terms of reference.

- 4.2 Green Belt: The relative difference in Green Belt land that will be taken under the three options is an important factor to which significant weight should be given:

- Gatwick Second Runway: 9 ha
- Heathrow Northern Runway Extension: 238ha
- Heathrow North Western Runway: 431 ha

Similarly the amount of each scheme in the Green Belt needs to be given significant weight both in absolute and relative terms:

- Gatwick Second Runway: 60 ha
- Heathrow Northern Runway Extension: 580ha
- Heathrow North Western Runway: 694 ha

- 4.3 Housing: Insufficient weight has been given to the consequences of the demolition of homes required by each of the Heathrow options plus the thousands more that will be bought up outside the land take area. Where will the people go and where will replacement schools and other community facilities be located? The assertion (paras 3.75 and 3.130) Consultation Document) that it will be achievable for local authorities to provide sufficient new housing and infrastructure is flawed for a number of reasons, not least since it appears to rest upon the lengthy timescale involved. How are such matters to be financed, especially as the new normal is that all public organisations are subject to increasingly stringent financial constraints?

Furthermore, no account has been taken of other constraints on local authorities. In the Royal Borough of Windsor & Maidenhead (RBWM) 83% of the Borough is Green Belt where development is precluded. There are also further significant areas subject to flooding risk in RBWM and doubtless other Boroughs. Due consideration and weight needs to be given to these, and similar, issues.

Green Belt land issues have been found (rightly) not to impact on the availability of land for new housing and infrastructure in respect of increased business employment for the Gatwick option (para 3.25 Consultation Document). No such analysis or conclusion has been undertaken in relation to either of the Heathrow options. Why?

A similar analysis must also be undertaken for all three options in respect of housing and infrastructure needed for replacement housing and associated infrastructure.

The proposal by Heathrow Hub that people displaced by the Northern Runway Extension scheme might be relocated to an area of green belt which is also a flood risk area is unacceptable.

- 4.4 People: It is astonishing that the impact of the two Heathrow options on people is reduced to only three short paragraphs in the Consultation Document (para 3.89-91) for Heathrow Northern Extension Runway where at least 242 homes are expected to be demolished and to only two paragraphs (3.141-142) in the case of the proposed Heathrow North Western Runway where at least 783 homes are expected to be demolished. The disruption to life, wellbeing and community cohesion requires greater analysis and significantly greater weight to be attached to these important social considerations than this implies. This is especially so as these impacts for each of the Heathrow options affect so many more people than the Gatwick option.

The conclusion that the effects on people living within 5km of the airport are likely to be broadly neutral is a fundamental error. How can it seriously be suggested that a family whose quality of life is blighted by high levels of aircraft noise for long periods will accept this as an acceptable trade off for slightly quicker journey times? This shows a frightening degree of cynicism that only economically quantifiable impacts should be considered. This is not consistent with the Commission's terms of reference. See also the response to Question 6 regarding sustainability.

- 4.5 Loss of Industrial and Business Land: Similarly, no serious analysis appears to have been undertaken of the disbenefits of the loss of some 74 ha of the Poyle industrial and business area and other commercial areas in the Heathrow

Extension of the Northern Runway option. The Poyle industrial and business area is fairly modern. It is unclear what compensation businesses will receive and what areas have been identified for relocation.

- 4.6 Southern Rail Access: The evidence, analysis and conclusions regarding the Southern Rail Access Link from Heathrow to Staines and beyond are superficial and inadequate having regard to the importance attached to it by the Commission at paras 3.77, 3.124 and 3.132 of the Consultation Document.

The line from London, Waterloo to Reading passes through Staines where there is a branch line to Windsor & Eton Riverside. The London, Waterloo to Reading line has many stops and primarily serves the needs of commuters and local residents. It is slow and, especially at peak hours, very crowded. There are numerous level crossings on the line. The journey time from Staines to London, Waterloo is 32 minutes.

Anyone wanting to go to Reading from Heathrow would use the First Great Western Trains Line not the slower South West Trains Line which is much slower with generally only two trains an hour. While Ascot and Wokingham theoretically provide connections to Guildford and from their Gatwick Airport, this would involve a change of train at stations with minimal facilities. The Ascot/Guildford line is notorious for disruptions/diversions/closure. The journey time from Staines to Reading is 49 minutes. For comparison Reading to London, Paddington takes 28 minutes.

The schematic diagram at Fig 13 of the Appraisal Framework Module 4 - Surface Access document gives a hopelessly idealised indication of the route from Staines to Woking. Staines to Woking is another slow and circuitous route. A platform change, including walking under the tracks, would be required at Woking to reach a southerly line. It takes between 53mins and 71 mins by train from Staines to Woking. There is a dedicated coach link between Heathrow and Woking that takes 25 mins.

The trains from Staines to London, Waterloo at morning peak times (also a peak time for Heathrow arrivals) are already packed. There are few, if any, seats. The position will be worse if passengers with baggage join the train.

The capacity figures at Table 8 of this document only highlight the problems: 191% of hourly seated capacity and 88% of hourly total capacity. The Commission asserts that the proposed Southern Rail Access is supposed to make Heathrow more accessible, to provide an improved customer experience and encourage a significant modal shift to rail. The evidence suggests the complete opposite.

The number of trains cannot be increased on the line. In part because it is very heavily utilised. Secondly, even if further trains on the line were possible it would further disrupt road traffic at numerous level crossings, especially at Sunningdale where the line crosses the busy A30 at a level crossing.

If the Southern Rail Access concept is considered to be unfeasible (as it should be) then the surface access case for other rail and other modes of transport will need to be reworked to take account the passengers currently anticipated to use the Southern Rail Access. The conclusions that have been drawn at paras 3.69 and 3.124 are untenable on the current evidence.

- 4.7 Competition Issues: Insufficient analysis and weight has been given to the fact that at Heathrow IAG and its alliance partners operate over 50% of flights (paras

3.63 - 68 and 3.118-123 Consultation Document). The market power that this results in can be expected to hobble competition to the detriment of users of airport and airline services at Heathrow and the wider public interest. These issues have not been adequately addressed in the International Transport Forum's report published in December 2014.

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?

5.1 Para 7.2.7, 12 and 14 of the Operational Efficiency: Airspace Efficiency Report relating to the Heathrow Northern Runway Extension raises very serious safety and efficiency concerns. Insufficient analysis and weight has been given to its implications. Indeed, it is surprising that these issues have not already resulted in the exclusion of this option.

5.2 Noise: The Commission's methodology for calculating noise from 2030 and beyond is flawed. Para A1(b) Appendix A Noise Baseline Document makes clear that for 2030 and beyond, the noise models are based on the ATMs with specific aircraft types flying along certain Standard Instrument Departures (SIDs) and Standard Terminal Arrival Routes (STARs). These SIDs and STARs do not exist at present and are hypothetical. Indeed, the noise patterns of some of the aircraft are also hypothetical since some of these aircraft are still in development – see also response 4.1.2.

5.3 Bird Strikes: It is clear from Jacob's Biodiversity Assessment that there is a significantly greater risk of bird strikes for each of the Heathrow options than Gatwick. One of the mitigation measures suggested, lasers, in relation Queen Mary Reservoir and the Extended Northern Runway at Heathrow is stated to have been trialled successfully. This suggests a high degree of uncertainty and risk as to whether such a novel method can be used effectively and efficiently at a large airport with multiple runways in real life, as opposed to an unspecified trial in a controlled environment.

Bird strikes have an importance far beyond biodiversity. It is of fundamental importance to the security and safety of passengers and planes. If this was to be compromised at any time in the future it would have a devastating impact on Heathrow's business case.

5.4 Biodiversity: The Jacobs Biodiversity Assessment for each of the three options has been carried out at a very high level with, in some cases, conclusions reached without analysis or any evidence. For example, at pages 9, 21 and 34 Jacobs states:

"Whilst Jacobs accepts the potential for disturbance effects to birds at these particular SSSIs, which is likely to require further detailed assessment, it is considered unlikely these effects will be significant. Lowland deciduous woodland and lowland heath habitats at these designated sites indicate the likely presence of bird species such as lesser-spotted woodpecker and nightjar which are highly unlikely to be significantly adversely affected by the proposal."

and at pages 9, 22 and 35:

"Whilst Jacobs accepts the potential for air quality effects to habitats at these SSSIs, which is likely to require further detailed assessment, it is considered unlikely these effects will be significant."

A more rigorous assessment is required since it does not appear that a sufficient objective, evidence based and precautionary approach has been used.

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

- 6.1 Please refer to the responses to Questions 3 and 4.
- 6.2 Air Quality: If the Commission considers that its Base Line does not adequately address all relevant issues then the correct approach is to modify the Base Line. It should not use any issues that the Commission has neglected to take full account of as equivalent to mitigation. However, this is what it has done at para 10.20 of the Heathrow Sustainability Assessments. The conclusion that air quality impacts will only be "Adverse" is not supported by evidence. It is difficult to contemplate any situation at Heathrow where the adverse impacts on air quality could be other than "Highly Adverse" bearing in mind that:
- current permitted levels are currently exceeded;
 - heritage and local designated sites are acknowledged to be threatened;
 - the promoters have not identified specific, substantial, forceful and enforceable measures that objectively demonstrate a clear, substantial, measurable improvement in air quality.
- 6.3 Biodiversity: The loss of lakes, wetland and other sites with a rich biodiversity component near Heathrow cannot be dismissed simply by applying a 2:1 ratio for the provision of alternative sites. It is unclear how, where and in what timescale the biodiversity will be restored. It is difficult to see how this will occur in an area sufficiently close to Heathrow to be effective. The conclusion should be "Adverse".
- 6.4 Carbon: Again, the Commission has adopted an overtly tolerant approach. No credible evidence has been provided that supports an overall classification better than "Significantly Adverse".
- 6.5 Water & Flood: It is perverse that the Commission should conclude that the flood risk is only "Adverse" for the Heathrow North Western Runway when it acknowledges at para 13.3-13.4 that:

"A key consideration with respect to the Heathrow Airport North West Runway scheme is the co-ordination between the culverting, diversion and creation of a new channel (the 'River Colne Spur'), along with loss of flood storage in the Colne Brook, Wraysbury River and River Colne floodplains. The impacts of these developments on flood risk, both at Heathrow and downstream, are difficult to accurately quantify because of the complexity of the development, but are significant. Even with mitigations these actions are likely to have residual adverse effects on flood risk."

This all the more so in view of the 2014 floods around Wraysbury and nearby areas.

Similar considerations are apparent in respect of paras 13.3-13.4 in respect of the Heathrow Northern Runway Extension.

6.6 Place: With the loss of 783 houses and 294 ha of Green Belt it is perverse that the overall impact on Place is only "Adverse" for the Heathrow North Western Runway. Similar considerations apply to the Heathrow Northern Runway Extension where the figures are 242 houses and 238 ha.

6.7 Quality of Life: The analysis and conclusions reached in relation to both the Heathrow options in relation to the Quality of Life Assessment at section 15 of each Heathrow Sustainability Assessment are perverse. It is highly questionable whether it is correct to conclude that the quality of life assessment, nationally, is highly supportive of these options. It is regrettable that the PWC report is written in terms that are unintelligible. The analysis emphasises the importance of employment and connectivity with wellbeing in the context of sustainability. This gives too much weight to these elements which have already been taken account of in relation to the business case and employment elements of the sustainability assessment.

There is no evidence to justify the move from "Positive" (Table 15.1) to the conclusion of Highly Supportive. There is no justification for the conclusion that the positive elements of local employment balance out the highly adverse impact of noise to result in a neutral outcome. Why has only noise been considered whereas other negative aspects such as air quality are ignored? This conclusion is an assertion that defies common sense.

6.8 Community: Again, the Commission's willingness to accept general and non-specific mitigation measures leads to a perverse outcome. It is unrealistic to think that the impact on Community could be less than "Significantly Adverse" after mitigation.

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

No comment

Q8: Do you have any other comments?

8.1 The fact that NATS is providing advice to the Commission and the promoters is a concern, especially as the impact of the choice and use of flight paths is of such fundamental importance to the Commission's analysis and conclusions. This appears to be a serious conflict of interest. The Commission must ensure that there are no circumstances, including the sharing of data and personnel, that could give rise to a conflict of interest and that the Commission engages independent experts to review and comment on NATS advice to the Commission.

The Commission should be aware that during last year's trial of new flight paths, when many people were greatly inconvenienced by aircraft noise, NATS refused to accept, far less act upon, complaints/representations to it. Such behaviour is supportive of an organisation more interested in itself than the wider public interest. Acting for several parties with apparently different interests in such a sensitive situation appears to be another example of such behaviour.

8.2 Fig 3.7 of the Consultation Document is incomplete. The descriptions of the various graphs are missing.

8.3 Fig 3.10 of the Consultation Document appears to be incorrect. The heading refers to the high end forecast whereas the legend for the graphs suggest that they are for low end forecasts. Are they intended to refer to high end forecasts?

- 8.4 Fig 3.5 and Fig 3.10 are not appropriate unless placed in a wider context. While they may have been included to provide consistency with the Gatwick option, graphs and data should also have been included referring to global growth, carbon traded scenario as this seems to be the more probable outcome at Heathrow, rather than a low-cost is king, carbon traded scenario.

Yours faithfully

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