



Airports Commission: *Interim Report*

Appendix 1: Assessment of Short- and Medium-Term Options

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Introduction

Chapter 5 of the Commission's *Interim Report* addresses the question of how the UK can make the best use of its existing airport capacity in the short- and medium-term, until any new capacity can be delivered.

This Appendix supports that Chapter and provides an overview of the basis on which the Commission made its recommendations in this area.

- **Section 1:** Describes the process that the Commission followed in considering options for making the best use of existing capacity.
- **Section 2:** Provides a full list of the components of the Commission's recommendations on this subject (which include some further components to those included in the main body of the *Interim Report*).
- **Section 3:** Lists the measures for making the best use of existing capacity that were submitted to the Commission as part of its call for evidence, along with the conclusion that the Commission reached on each proposal.

Section 1:

The Commission's process

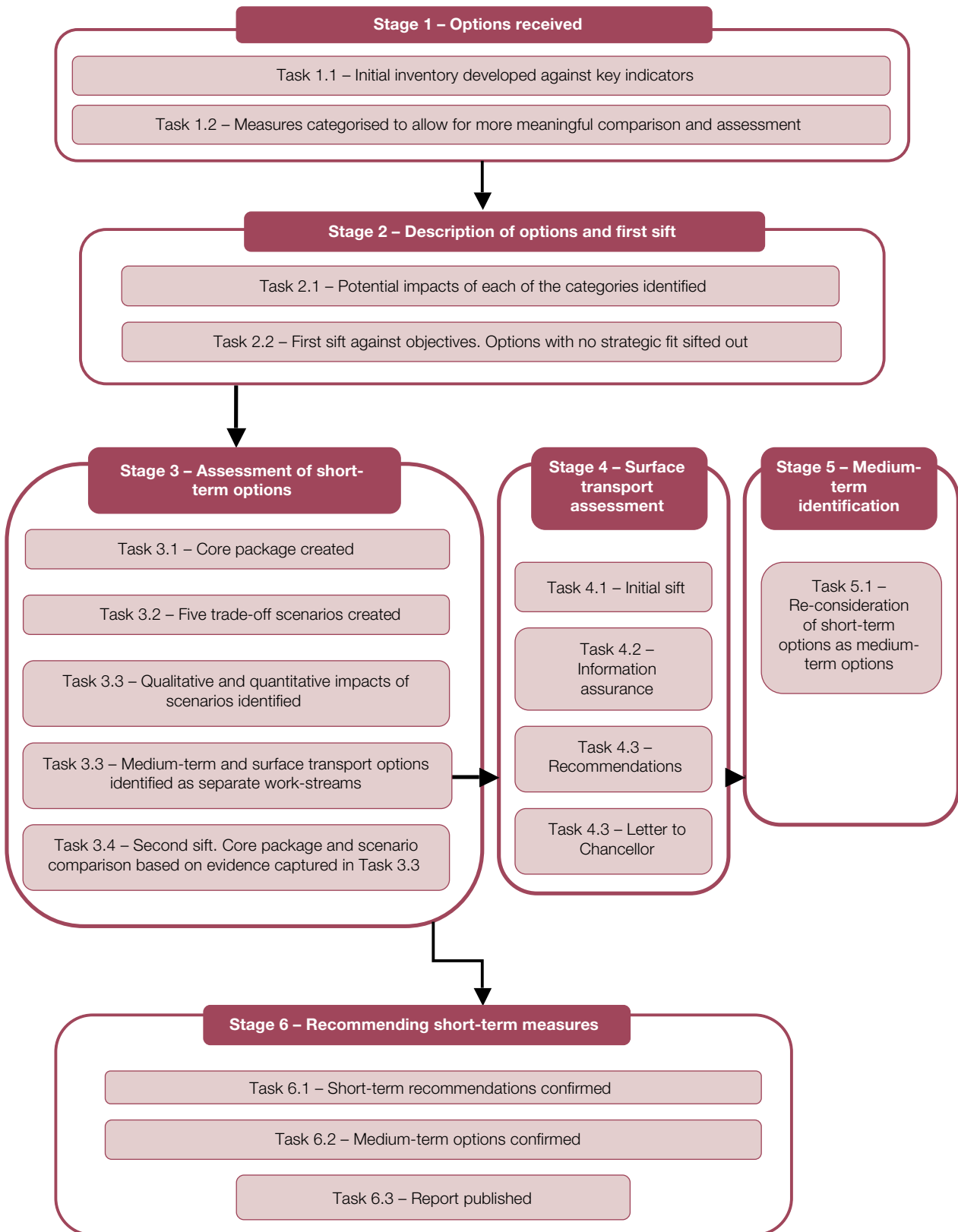
Overview

- 1.1** The Commission's Terms of Reference¹ state that, as part of its *Interim Report*, it should present:
- its recommendations for immediate actions to improve the use of existing runway capacity in the next 5 years – consistent with credible long-term options.
- 1.2** The Commission determined that the Terms of Reference required it to identify a set of measures which could be implemented relatively quickly and without prejudice to the deliverability of any of the longer-term options for new capacity taken forward for further development in Phase 2. The Commission's recommendations as set out in Chapter 5 and this Appendix fall into this category.
- 1.3** The Commission also determined that some of the options around existing infrastructure would have longer delivery timescales or adverse interactions with certain longer-term options. The Commission recognised that it would not be possible to make recommendations on them in the *Interim Report*. They would need to be considered alongside long-term options in Phase 2, as part of a transition strategy.
- 1.4** In February 2013, the *Guidance Document 01: Submitting evidence and proposals to the Airports Commission*² requested that any proposals for improving the use of existing capacity were submitted to the Commission by 17 May 2013. The process that followed this date is set out in Figure 1.1 below:

¹ <https://www.gov.uk/government/organisations/airports-commission/about/terms-of-reference>

² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/70285/submitting-evidence-airports-commission.pdf

Figure 1.1 The methodology



- 1.5** As part of **Stage 1**, the Commission considered the options received in submissions against its own initial inventory of options. Following this, the Commission broke down the measures under consideration by category (with categories including, but not limited to, 'airport operations', 'airspace operations', 'slot allocation' and 'surface transport').
- 1.6** In **Stage 2**, the Commission collected more detailed information on measures to improve its understanding of their potential impacts. In some cases, this required meetings between the Secretariat and parties who had suggested measures or offered commentary on them. Relevant parties here included airports, airlines and community groups, as well as industry bodies such as Airport Coordination Limited (ACL), which is responsible for slot allocation. The Secretariat put more extensive arrangements in place with the Civil Aviation Authority (CAA), NATS and Network Rail, recognising the more detailed level of advice required in those organisations' areas of expertise. In July, the Commission conducted a first sift, which identified measures that clearly did not fit with its remit. It also identified options whose delivery timescales or potential for conflict with some long-term options under consideration meant that, while they might have merit, recommendations would not be possible in the *Interim Report*.
- 1.7** In **Stage 3**, the Commission continued to develop its understanding of measures and to develop qualitative and quantitative assessments of their impacts. Many of the measures under consideration had complicated interactions and dependencies and were therefore best considered as part of packages rather than in isolation. The Commission identified a central set of measures to enhance resilience that did not conflict with other measures under consideration. This 'core package' would later evolve into the Optimisation Strategy described in **Chapter 5** of the *Interim Report*. The Commission also tested a number of scenarios for going further (eg. creating new capacity, further enhancing resilience, doing more to offset the adverse consequences of aviation). While none of these scenarios was adopted wholesale, elements of them were eventually incorporated back into the core package and form part of the recommendations (most notably the creation of an Independent Aviation Noise Authority).
- 1.8** **Stage 4** was largely conducted in parallel with Stage 3. The Commission identified that the assessment of surface transport proposals would be better conducted, so far as possible, in a manner that incorporated elements of existing surface transport appraisal mechanisms, so as to accelerate their delivery should Government choose to accept the Commission's recommendations in this area. Surface transport appraisal was therefore taken forward as a discrete workstream. The

Commission identified an opportunity for early progress on its recommendations in this area and therefore decided that the Chairman should write to the Chancellor of the Exchequer to set out surface transport recommendations ahead of the Autumn Statement. This letter was sent on 26 November. HM Treasury announced in its National Infrastructure Plan, published on 5 December, that it would begin the process of taking forward these recommendations.

- 1.9** **Stage 5** was also conducted in parallel with Stages 3 and 4. This stage involved further assessment and development of those options identified in Stage 2 whose delivery times or potential conflicts meant that recommendations would not be possible in the *Interim Report* (medium-term options). The assessment undertaken was less detailed than that on other options, recognising that further work would be needed in Phase 2.
- 1.10** In **Stage 6**, the Commission confirmed the contents of the Optimisation Strategy, as well as other short-term recommendations such as those around industry governance. This was done on the basis of assessments carried out in Stages 3 and 4.

Section 2:

List of recommendations

2.1 The full list of the components of the Commission's recommendations for making the best use of existing airport capacity, ordered by theme, is set out below. The glossary included in the *Interim Report* explains the terminology used in these recommendations.

Airport operations

2.2 Recommendations are:

- The industry should implement Airport Collaborative Decision Making (ACDM) quickly and seize the opportunity it provides to make use of the data collected by the system to help inform the definition of airport schedules and to monitor compliance against these. Added to this, those airports with more than 30,000 Air Transport Movements (ATMs) should invest in the provision of Departure Planning Information (DPI) into the airport and airspace network by April 2015 to ensure the most efficient use of airspace over the UK.
- Heathrow Airport should conduct a trial to smooth the peak in demand from arriving aircraft after 06:00 – which often results in both runways being used for arrivals – to allow for more flights in the 05:00-05:59 hour and, as a result, limit the use of both runways for arrivals to those days when the most significant delays are experienced. The trial should be undertaken by 2015 at the latest, once all stakeholders have been appropriately consulted and dispensation has been sought from the night noise regime from the Secretary of State for Transport.
- Recognising the limited number of tools available to Heathrow airport in responding to delay, the Commission recommends that:
 - Following consultation, the airport should continue to operate enhanced Tactically Enhanced Arrivals Mode (TEAM) – with a reduced trigger point of 10 minutes' delay on arrival – to allow delays to be tackled as they start building up, taking advantage of more accurate schedule information so as to balance demand for arrivals and departures; and

- The Government should support the airport in its efforts to expedite the re-definition of its departure routes both to mitigate noise impacts and to enable increased departure flow rates when necessary.
- Dual arrivals – through the use of TEAM – are not currently operated in the most efficient way, as Heathrow’s runways are considered to be too close together. This results in the arrivals needing to be offset from each other on approach, adding complexity and additional workload for air traffic control into the operation. Heathrow should begin work with the CAA to build the case for declaring its arrival runways to be independent of each other, removing the dependency between successive arrivals, thereby optimising the use of TEAM.
- Runway alternation provides those living under Heathrow’s flight paths with predictable respite from noise. Runway alternation should be enabled as rapidly as possible for easterly operations. This will provide respite for those, particularly in Windsor, who do not currently benefit from alternation.
- Given developments in aircraft technology over time, the Government should review the need for a westerly preference with a view to introducing a ‘no preference’ policy.
- The Commission recommends that reduced engine taxi – the practice where one or more engines are shut down for taxiing to and from the runway so as to reduce emissions on the ground – forms part of standard airline practice at UK airports which, together with airport ground vehicle fleet renewal plans setting priorities to procure electric vehicles wherever possible, will contribute to quieter and cleaner UK airports.

Airspace operations

2.3 Recommendations are:

- The Government should facilitate moves by industry to redesign airspace within the London area to a performance-based navigation standard allowing for closer spaced departure routes where possible. Airports should also work closely with NATS to consider the feasibility and implementation of alternating arrival and departure routes to offer respite for local communities living under these aircraft paths.
- Work to end the current practice of aircraft holding in circular stacks is welcomed. NATS should encourage greater adherence to schedule by airlines through stricter enforcement of aircraft required time of arrival at fixed points en route.

- Work to implement Time Based Separation at Heathrow should be taken forward urgently, with a view to implementation by 2015, followed by implementation at Gatwick.
- Current ground-based navigational systems supporting aircraft on their approach are not robust enough to operate effectively during periods of low visibility and do not make best use of available modern technology. The industry should prioritise the development and implementation of these systems to improve resilience during periods of low visibility, particularly as this currently leads to a reduction in the landing rate.
- The Commission supports the principle of consultation and thinks it is right that local communities are involved in the decision making process for changes that will affect them. The outcomes of consultation should be fully taken into account at the design stage governing any airspace change process and the CAA, as the body with responsibility for airspace changes, should play an instrumental role in balancing the costs and benefits of any airspace change. The Government should not form part of this decision making process, as there are organisations better placed to play this role in determining the balance of costs and benefits of every operational change proposed. Therefore, the Commission recommends the Government devolves its responsibility for airspace changes to the CAA, advised as appropriate by a newly established Independent Aviation Noise Authority.
- Considering the environmental benefits that can be derived from more direct aircraft routings, NATS and the Ministry of Defence should continue to work together to agree a strategy for ensuring airspace is only closed for military use when it is absolutely required.

Industry governance

2.4 Recommendations are:

- The Commission recommends that the delivery of the measures identified in relation to the optimisation of UK airports and airspace, particularly where they form part of the Future Airspace Strategy and London Airspace Management Programme, requires the involvement of top-level representatives from the most directly involved organisations. The Commission therefore recommends the establishment of a Senior Delivery Group with Board-level representatives from the CAA, NATS and the major airports in London and the South East who have overall responsibility for the delivery of the Future Airspace Strategy.

- The Group should be chaired by the Chief Executive of one of the member organisations listed above and should report on a six-monthly basis by means of a published progress report. The first report should provide industry with a detailed timetable for delivery, with clear milestones and dependencies identified.
- The Group should be responsible for holding individual airports to account for making sure that improvements to punctuality and scheduled performance driven by the FAS and the wider Optimisation Strategy are matched by appropriate changes to the airport's local operation models.

Slots and scheduling

2.5 Recommendations are:

- With the increase in information available through ACDM, linear holding and weather forecasting, airports should be able to generate a strategic plan for delivery of the schedule one day in advance to identify where there will be pinch points in the schedule or where it will not be met. This would allow for preventative action to be taken in advance where necessary, and for cancellations to be managed in a controlled way with passengers being informed in advance.

Regulation

2.6 Recommendations are:

- The Commission recommends that an independent body be established with a duty to provide statutory advice to the Government and the CAA on issues relating to aircraft noise. The Government and the CAA should be required to publish their reasoning in any cases where their decisions diverge from the advice provided by the body.
- The establishment of an Independent Aircraft Noise Authority would require primary legislation. In the meantime, the industry should not wait for the establishment of this body before beginning the process of implementing of the Optimisation Strategy.

Surface transport

2.7 Recommendations are:

- The Government should attach a greater strategic priority to transport investments which improve surface access to our airports.

- The Commission further recommends a package of specific surface transport improvements, described in full in Chapter 5 of the *Interim Report*.

Air services agreements

2.8 Recommendation is:

- Government should continue to pursue its current policy of encouraging overseas airlines to apply for fifth freedom rights at less congested UK airports, subject to the Government satisfying itself that the grant of such rights will not be likely to distort competition in the relevant market.

Section 3:

Proposals received and Commission conclusions

	Airport operations options	The Commission's view
1	<p><i>Application of the alternation regime on easterly operations:</i> Heathrow's runways are operated in segregated mode where one runway is used for arrivals and the other for departures. The arrival and departure runways are alternated at 15:00 each day to give those living under the flight paths respite from noise. For historical reasons, there is no alternation of the runways on easterly operations. This measure would support a move to a full alternation regime.</p>	<p>Please see recommendation in Section 2 of this document.</p>
2	<p><i>Removal or change to the westerly preference criteria:</i> Heathrow's runways are oriented east-west and due to the prevailing wind the airport operates mainly with arrivals and departures to the west, i.e. flying into the wind. This is supplemented by a 'westerly preference' during daytime operations, which means that the airport continues to operate in a westerly direction until the easterly component of the wind (effectively the tailwind) exceeds 5 knots. This measure would support a change to this preference either by (a) removing it so that aircraft would always operate into the wind; or (b) increasing it so that a 10 knot easterly (tailwind) would be needed before the switch were made away from westerly to easterly operations.</p>	<p>Please see recommendation in Section 2 of this document.</p>
3	<p><i>Use of displaced thresholds:</i> This would allow aircraft to land further towards the centre of the runway, meaning that their approach paths would be higher and therefore less noisy than at present when entering the airport perimeter. This measure has been proposed in relation to London Heathrow but could be considered in relation to other airports in the UK.</p>	<p>The Commission sees merit in considering further the feasibility of displaced thresholds at Heathrow. Further work is required to understand the full costs and benefits of this proposal, including the infrastructure changes required, the safety risks, the impact on runway occupancy and therefore capacity, and the corresponding noise impacts before a recommendation can be made. However, this proposal should be considered further as part of the work to develop the long-term options.</p>

	Airport operations options	The Commission's view
4	<p><i>Putting an end to the routine use of both runways for arrivals between 06:00 and 07:00:</i></p> <p>This would see a redistribution of existing flights in the early morning arrival period permitting an increased number of arrivals in the 05:00 – 06:00 period in order to reduce the use of both runways for arrivals in the early morning period to mitigate community disturbance.</p>	Please see recommendation in Section 2 of this document.
5	<p><i>Introducing measures assessed during the recent Operational Freedoms trial at Heathrow including 'early vectoring' to improve departure rates; tactically using both runways for arrivals when there are delays and using the southern runway for the arrival of A380s and for Terminal 4 arrivals:</i></p> <p>These measures were trialed as part of the Operational Freedoms trial in 2012/13 at Heathrow to enable a more flexible approach to the operation of the runway infrastructure. The original objective of the Operational Freedoms trial was to test the way in which changes to operational practices might have a beneficial effect on the reduction in delays experienced by users, improvement in flight punctuality and the increased resilience of the flying schedule.</p> <p>The specific measures proposed are as follows:</p> <p>'Early vectoring' – Aircraft departing from Heathrow follow set departure routes (known as Noise Preferential Routes or NPRs). The choice of departure route used by aircraft is mostly decided on their destination. Those heading to Scandinavia for example will use northerly departure routes whereas those destined for southern Europe will use southerly departure routes. Due to the fact that the majority of the destinations served by Heathrow are destined towards the south, this can often cause delay on departure. 'Early vectoring' was the procedure tested during the trial which saw departures using southerly departure routes being redirected from the departure route earlier than is usual. This meant the separations between aircraft could be reduced from two minutes to one minute on these southerly departures.</p>	Please see recommendation in Section 2 of this document.

	Airport operations options	The Commission's view
	<p>Tactically using both runways for arrivals – Heathrow's runways are operated in segregated mode where one runway is used for arrivals and the other for departures. When the build-up of arriving aircraft results in severe delays, air traffic control is allowed to land aircraft on both runways. This is known as Tactically Enhanced Arrivals Mode (TEAM). This measure was only used when specific trigger conditions were met. For information on these triggers please refer to Heathrow Airport's website at: http://www.heathrowairport.com/noise/noise-in-your-area/operational-freedoms-trial</p> <p>Using the southern runway for the arrival of A380s and for Terminal 4 arrivals – The A380 is the biggest aircraft that operates at Heathrow. Due to the vortex it produces, aircraft behind it have to allow a greater distance when coming in to land. This can lead to a delay in the arrivals programme. This measure would take A380s out of the arrival sequence to land on the designated departure runway so as not to disrupt the arrival flow. The use of the southern runway for Terminal 4 arrivals is intended to reduce the time needed for aircraft to taxi to the terminal on arrival as Terminal 4 is situated south of the southern runway. This could potentially reduce ground noise and emissions and avoid the need to cross the southern runway, therefore reducing disruption.</p>	
6	<p><i>Mixed mode at Heathrow:</i> Introduction of mixed mode operations for Heathrow runways would allow both runways to be used for arrivals as well as departures, whereas a single runway is currently used for arrivals and the other for departures. This measure has been proposed in two forms: to increase capacity at Heathrow (which would necessitate an additional planning condition to allow for more aircraft movements) and to increase resilience (not necessitating a change to the number of aircraft movements allowed under the planning rules applied at Heathrow) either as a tactical solution when delays reach certain levels or as a full time measure.</p>	<p>The Commission's view is that mixed mode – both for resilience and for additional capacity – should not form part of its recommendations for making best use of existing capacity in the short-term. Instead, the option should be given further consideration as part of the transition scenarios for the long-term options taken forward for further development. More information on the Commission's consideration of mixed mode can be found in Chapter 5 of the <i>Interim Report</i>.</p>

	Airport operations options	The Commission's view
7	<p><i>Airport Collaborative Decision Making (ACDM):</i> This measure is about partners (airport operators, aircraft operators/ground handlers, air traffic control and the Network Manager) working together more efficiently and transparently in the way they make decisions and share data. At an airport level, the ACDM system would aim to improve the overall efficiency of operations with a particular focus on aircraft turnaround times and the pre-departure sequence. One of the main outputs of the ACDM process is intended to be more accurate information about aircraft Target Take Off Times which could then be used across the European Air Traffic Management Network to plan air traffic movements further into the system.</p>	Please see recommendation in Section 2 of this document.
8	<p><i>Linking all airfields to air traffic management for information exchange:</i> This measure would support the implementation of simple interfaces for electronic data exchange between smaller airports and the air traffic management network to ensure air traffic managers across the network have as complete a picture as possible of current and near term operations.</p>	Please see recommendation in Section 2 of this document.
9	<p><i>National and local capacity management cells:</i> This proposal supports the establishment of airport bodies representing the range of airport stakeholders. The aim of these bodies is to manage demand levels as well as prioritising access to airports and airspace to minimise the impact of adverse conditions.</p>	The Commission notes that Gatwick and Heathrow airports have established capacity management cells to balance demand and capacity, particularly to manage major disruption. If capacity management cells would be beneficial on a national level, industry should work together to identify an appropriate body to take this forward.
10	<p><i>Reduced engine taxi:</i> This measure would involve aircraft taxiing to and from the runway using a reduced number of engines. This has the potential to reduce fuel burn and therefore emissions such as carbon dioxide and nitrogen oxides.</p>	Please see recommendation in Section 2 of this document.
11	<p><i>Use of electric vehicles airside:</i> This proposal supports the use of electric vehicles for airside operations to decrease the emissions associated with ground operations.</p>	Please see recommendation in Section 2 of this document.

	Airport operations options	The Commission's view
12	<p><i>Traffic light systems for aircraft to maximise runway utilisation:</i></p> <p>This measure has been proposed to reduce the time taken for aircraft to exit the taxiway onto the runway by providing aircrew with an indication that their air traffic control clearance is imminent through a traffic light system. This would allow them to initiate final checks and power settings and thus move onto the runway sooner than would otherwise be the case, because it is suggested that there is a small delay incurred due to the reaction time between air traffic control giving an instruction to proceed and the aircrew enacting that decision.</p>	<p>The Commission does not recommend this measure. There are no existing precedents for this system and it is not clear what the benefits of this proposal are.</p>
13	<p><i>More use of remote stands:</i></p> <p>This measure proposes the use of additional remote stands away from the main terminal areas to provide additional parking space for aircraft to reduce congestion on the busiest parts of the airfield.</p>	<p>The Commission believes that this measure is for airports and their own master-planning. The Commission does not recommend this measure.</p>

	Airspace operations options	The Commission's view
14	<p><i>Airspace restructuring:</i></p> <p>This measure supports the implementation of major programmes, including the Single European Sky (SES)/ Single European Sky Air Traffic Management Research (SESAR), Future Airspace Strategy (FAS), the London Airspace Management Programme (LAMP) and the more specific airspace changes that underpin them. It also includes aircraft departing at steeper angles of ascent so that the aircraft reaches higher altitudes earlier. The Single European Sky (SES) initiative was established to simplify and harmonise airspace structures across Europe. As part of the Single European Sky initiative, SESAR (Single European Sky ATM Research) represents its technological dimension. In the UK and Ireland NATS are setting out a plan to modernise airspace by 2020 supporting the Future Airspace Strategy, part of which includes the London Airspace Management Programme. These programmes are intended to redesign airspace structures to exploit aircraft abilities to fly precise and efficient trajectories using performance based navigation.</p>	<p>Please see recommendation in Section 2 of this document.</p>

	Airspace operations options	The Commission's view
15	<p><i>Civil/military airspace optimisation:</i> This measure proposes the reprioritisation of access to airspace from military to civil operations. Currently airspace is structured so that military authorities have control of some areas where weapons testing occurs from time to time for example. Under current arrangements within the so called flexible use of airspace, this airspace is released for civil use when it is not required by the military. Decisions to release airspace for civil use are taken by military authorities. This measure would impose a limit on military operations that impinge on civil traffic, effectively releasing the airspace for more civil use.</p>	Please see recommendation in Section 2 of this document.
16	<p><i>Creation of a known-surveillance environment:</i> This would lead to the definition of areas of airspace within which all aircraft must carry technology that identifies them and makes them visible to air traffic control all of the time.</p>	The Commission recommends that the CAA and NATS should re-consider the options for managing the risk of infringements into airspace around airport arrival and departure routes from aircraft not fitted with transponders.
17	<p><i>Incentivisation of flights' arrival punctuality instead of departure punctuality:</i> This would move the main performance incentive from on-time departure to on-time arrival to align the objectives of individual airlines to those of the overall system more than at present. Currently the main incentive for airline performance is focused on departures, measured as the time that the aircraft leaves its stand compared to its scheduled time. This incentive can cause perverse behaviours that compound to the detriment of the system as a whole. These behaviours include: (a) excessive buffers in schedules, to ensure on-time arrival in time for on-time or early departure, which can cause bunching in arrivals that leads to delay and in turn leads to increased buffers in the schedule; (b) early push-back from stand that can cause queues in the airport perimeter and departure delays.</p>	The Commission does not consider it possible in the short-term to achieve whole industry shift to arrival punctuality, which is what would be needed to implement this effectively. Industry should, however, work to consider incentivising arrival punctuality in the context of improved performance and schedule adherence as part of the transition to long-term options to make best use of additional capacity when it comes on stream.
18	<p><i>Redefining the triggers for the application of low visibility procedures (LVP):</i> This measure would lead to improved planning for reduced runway visibility due to fog and cloud at an early stage to improve resilience against low visibility. Low visibility procedures are enacted when either the runway visible range or cloud ceiling is below minima defined on an airport-by-airport basis. There is currently no differential between LVP caused by reduced runway visual range (fog) and low cloud ceiling. Pre-emptive action is taken, usually the day before, to manage disruption due to the application of LVP. This action is based on the weather forecast and can lead to changes in the number of aircraft that are allowed to land and take off from the runway.</p>	The Commission recommends industry continues to work to review the triggers associated with low visibility procedures, particularly those associated with low cloud.

	Airspace operations options	The Commission's view
19	<p><i>Distributing departure routes within noise preferential route (NPR) swathes:</i></p> <p>This would change the policy of concentrating aircraft on only a few flight paths to one of using a greater number of routes in a pattern that could provide additional predictable periods of respite from aircraft flying.</p>	Please see recommendation in Section 2 of this document.
20	<p><i>Arrival queue management:</i></p> <p>This measure has been proposed to address the management of inbound delay. At present air traffic control manage holding delays in two forms: (a) holding on the ground at the origin airport arranged through Eurocontrol through Air Traffic Flow Management, and (b) holding in the air. This occurs in four stacks which are used to buffer inbound aircraft to Heathrow. This measure proposes the absorption of delays associated with sequencing for access to runways further upstream on the aircraft's flight path thereby reducing the need for more localised holding in stacks or through extended approach paths.</p>	Please see recommendation in Section 2 of this document.
21	<p><i>Enhanced processes against weather disruption through the use of Time Based Separation (TBS) and through the use of alternative navigational technology:</i></p> <p>Inbound delays are exacerbated during periods of bad weather when the number of aircraft able to land on the runway is reduced. This is principally because of the need to maintain safe separation between approaching aircraft in an arrivals stream. In high (head) winds and low visibility, the separation between aircraft needs to be increased: in the first case to maintain the separation standards defined in terms of distance between aircraft, and in the second case to ensure the safe functioning of the precision guidance system (the Instrument Landing System – ILS) for approaching aircraft to guide them to land on a runway. In busy airports the number of arrivals are packed together to allow for maximum runway throughput. As such, they are more prone to weather disrupting their operations. This measure would address the impacts of high winds on runway throughput by moving to a process based on separations in time between successive aircraft in the sequence (time based separations) rather than distance-based separation as at present. It would allow for the arrival traffic to be reduced to a lesser extent than currently occurs. This measure also supports the transition to a Microwave Landing System (MLS) already used by British Airways, instead of the current Instrument Landing System (ILS). MLS is considered to perform better in all weather conditions than ILS.</p>	Please see recommendation in Section 2 of this document.

	Airspace operations options	The Commission's view
22	<p><i>Steeper approaches into airports, including both continuous and stepped:</i></p> <p>This measure would increase the height of aircraft as they make their final approach to the airport, thereby reducing noise. Approach paths could either be at a continuous approach angle (between 3.2 and 3.5 degrees) or be stepped at different angles (with a steeper intermediate approach followed by the standard 3 degree airport approach).</p>	<p>The Commission supports the principle of steeper approaches but has not been able to prove a strong noise benefit from the introduction of 3.2 degree approaches at Heathrow. Steeper approaches at steeper angles do not appear feasible at Heathrow due to the current fleet mix, with the impact on the landing rate unknown. The Commission considers these issues should form part of any future trials of steeper approaches and, if the benefits can be proved, that steps be taken to implement them.</p>
23	<p><i>Dual approaches to a single runway:</i></p> <p>This would use differential approach path angles to reduce the separation needed because of aircraft wake vortex constraints, thereby increasing the arrival flow on the runway.</p>	<p>There appear to be significant concerns about the operational viability of this measure and uncertainty about its benefits. In addition, the complexity of preparing safety cases would be likely to push implementation past the short-term.</p>
24	<p><i>Multiple approaches to a single runway to guarantee respite:</i></p> <p>This measure would allow for a change to the policy of concentrating aircraft on only a few flight paths to one of using a greater number of routes in a pattern which could provide predictable periods of respite from aircraft flying.</p>	<p>Please see recommendation in Section 2 of this document.</p>
25	<p><i>Independent parallel approaches at Heathrow:</i></p> <p>This measure supports the use of both runways simultaneously for arrivals at Heathrow, allowing independent parallel approaches that would maximise arrival runway throughput. At present when both runways are used for arrivals, the air traffic stream on one runway is dependent on the traffic stream on the other. This means that aircraft must be offset from each other, meaning that the arrival flows are not optimised.</p>	<p>Please see recommendation in Section 2 of this document.</p>

	Airspace operations options	The Commission's view
26	<p><i>New service concepts:</i> Currently queues of aircraft are managed on a first-come, first-served basis. This can sometimes result in behaviours that are detrimental to the performance of the system as a whole, eg. in incentivising flights to be at the front of the queue, for example when the airport opens after the night period or after periods of disruption. This can cause bunching and increased aircraft queue lengths on arrival, particularly at busy airports like Heathrow. This measure would result in the application of the most appropriate method of aircraft queue management, selected from 'first-come, first-served' (as at present), 'on-time, first-served' (where priority is given to flights that are on-time) or 'best-equipped, best-served' (where priority would be given to the most capable aircraft).</p>	<p>The Commission understands the benefits that could be derived from moving away from a system of first come, first served but considers that in the short term without additional capacity, this is an unrealistic expectation. There is, however, merit in considering whether a system that prioritised better equipped aircraft would provide an incentive for airlines to invest in performance based navigation capability, which could facilitate the introduction of the Future Airspace Strategy and the Commission's recommendations.</p>
27	<p><i>Linking airspace slot management to airport slots:</i> This measure proposes the management of airport and airspace slots linked, strategically in terms of capacity declaration but also tactically, as was applied to the London airport system during the London 2012 Olympic Games.</p>	<p>The Commission is not recommending this option as it would likely create a regulatory burden, distorting the business jet market.</p>
28	<p><i>Optimised departure separation using advanced aircraft navigational technology:</i> Currently, aircraft fly along Standard Instrument Departure routes (SIDS) that are defined as the centreline of established Noise Preferential Routes (NPRs). SIDS are single routes and departing aircraft using the same SID fly in sequence along the route with their minimum separations as defined by the air traffic control baseline rules. For a constant stream of aircraft departing down the same SID, these separation rules are a constraining factor on the frequency of departures. This measure is seeking to offset the angle between SIDS so that the departures no longer need to fly in sequence down one SID. This would effectively relax the required minimum separation required therefore increasing the frequency that aircraft can depart the runway. Most aircraft are now equipped with advanced navigational capability, which means they can accurately navigate routes without extensive air traffic control intervention. This concept would require airspace change and potentially a redefinition of NPR but could enable aircraft to be dispersed within the NPR rather than being concentrated on the centreline as at present.</p>	<p>Please see recommendation in Section 2 of this document.</p>

	Slot/scheduling options	The Commission's view
29	<p><i>Return to direct Government control regarding the allocation of slots:</i></p> <p>The measure proposes Government asserting control over the allocation of slots at UK airports, distributing them in accordance with its assessment of the national interest.</p>	<p>The Commission does not recommend this measure. There has never been direct Government control of slot allocation. Government taking control would place it in violation of European and broader international treaty commitments.</p>
30	<p><i>Use of Public Service Obligation (or other means) to safeguard UK regional access to Heathrow:</i></p> <p>This measure proposes the use of Public Service Obligations (PSOs) or, alternatively, financial or regulatory instruments to ensure the continuance of flights from UK regions into Heathrow Airport.</p>	<p>The Commission does not recommend this measure. The rules surrounding PSOs would not allow for this, and the Commission are unconvinced of the benefits of this measure.</p>
31	<p><i>Designate different airports to serve different types of traffic:</i></p> <p>This measure would use Traffic Distribution Rules (or other mechanisms) to allocate certain categories of flight (e.g. short-haul, long-haul, domestic, general aviation) to specific airports.</p>	<p>The Commission does not recommend this measure. The Commission believes that the Government's levers of influence in this area are minimal and that attempting to impose changes to traffic distribution would be rendered unworkable by the commercial realities of the industry.</p>
32	<p><i>Reduce capacity declaration at airports and ensure the efficient utilisation of slots:</i></p> <p>This measure would provide a lower capacity declaration at airports, to manage down congestion over time (or prevent airports reaching full capacity) so as to minimise the impacts of congestion on resilience. The proposal would be for a greater focus to be provided on the efficient utilisation of slots through the slot allocation process.</p>	<p>The Commission does not recommend this measure. International treaties would render the implementation of this measure effectively unworkable.</p>
33	<p><i>Changes to market based slot allocation mechanisms (eg slot auctioning or slot rentals):</i></p> <p>This would change the systems for slot allocation to permit more diverse market-based solutions, such as slot auctions, allowing the system to better respond to changes in demand.</p>	<p>The Commission does not recommend this measure. While the Commission believes that there may be a case for a review of slot allocation mechanisms in the longer term, it does not see any prospect of change in the short or medium term. Changes to slot mechanisms would require agreement at the European and broader international level, which would be difficult to achieve.</p>

	Slot/scheduling options	The Commission's view
34	<p><i>Financial incentives to use slots for routes to emerging markets:</i></p> <p>This option would provide financial incentives for airlines to use slots to provide new routes to emerging markets rather than serving existing 'thick' routes, with a view to enhancing connectivity to these regions.</p>	<p>The Commission does not recommend this measure. The Commission believes that there is a high potential for gaming of the system and the creation of perverse incentives, together with the risk of market distortion. Changes to slot mechanisms would require agreement at the European and broader international level, which would be difficult to achieve.</p>
35	<p><i>Operation of an optimised, daily service plan:</i></p> <p>This measure proposes operating to an optimised daily service plan to produce, ensure compliance with and deliver an optimal on-the-day arrival and departure schedule based on accurate predictions of runway throughput rates.</p>	<p>Please see recommendation in Section 2 of this document.</p>

	Regulatory options	The Commission's view
36	<p><i>End economic regulation of airports:</i></p> <p>This would see the end of the Civil Aviation Authority's economic regulation of airports, with a particular view to allowing the consequent rise in landing charges at the most congested airports to redistribute traffic around the network.</p>	<p>The Commission will consider the regulatory structures that might underpin the delivery of future airport infrastructure as part of Phase 2.</p>
37	<p><i>Reduce landing charges at Heathrow and Gatwick:</i></p> <p>This proposal would introduce a tougher cap on landing charges at these airports via the regulatory framework with the intention of reducing ticket prices for passengers and driving operating efficiencies.</p>	<p>The Commission recognises that it is the role of the CAA to regulate the aviation sector and believes that this measure may have some merit in being further considered as part of the wider regulatory framework considerations in Phase 2 as appropriate.</p>
38	<p><i>Prohibit certain aircraft types (e.g. freighters) from congested airports:</i></p> <p>This measure would require aircraft whose perceived need to use a 'hub' airport is lower than others to use airports other than Heathrow.</p>	<p>The Commission does not recommend this measure. The Commission believes that the market has already provided incentives that have minimised the use of the types of flight under consideration at the most congested airports.</p>
39	<p><i>Ban general and business aviation from congested airports:</i></p> <p>This would prevent general and business aviation flights from using Heathrow (and potentially Gatwick), with the intention of improving capacity usage at those airports.</p>	<p>The Commission does not recommend this measure. The Commission believes that the market has already provided incentives that have minimised the use of the types of flight under consideration at the most congested airports.</p>

	Regulatory options	The Commission's view
40	<i>Remove restrictions on usage of general aviation airfields (e.g. to allow for scheduled flights):</i> This measure would remove the restrictions under which some airfields primarily serving the general aviation community currently operate, allowing them to accommodate scheduled flights, relieving pressure elsewhere in the network.	The Commission favours this measure in principle but believes that this should be assessed on a case-by-case basis and the decision left to the airfield and local authority.
41	<i>Streamline planning process for new airport infrastructure:</i> This is proposing a reform to the UK's planning laws to accelerate the process for delivering new airport infrastructure.	The Commission believes that this measure has merit in being further considered as part of Phase two as appropriate
42	<i>Establish an independent noise regulator:</i> This measure would lead to the creation of an independent body responsible for the regulation of aircraft (and potentially other sources of) noise, to introduce transparency and consistency into the system.	The creation of an Independent Aviation Noise Authority forms part of the Commission's Optimisation Strategy.
43	<i>Border control reforms:</i> A number of measures have been proposed, including reforms to the UK's visa system, an increase in the number of border control staff at airports, and the provision of US border-control facilities in UK airports.	This is not technically within the Commission's remit, although the Commission recognises that this forms an important part of passenger experience. The Commission invites the Government to consider this further.
44	<i>Minimum aircraft size rules at congested airports:</i> This measure would prohibit small aircraft from using the most congested airports via licence condition.	The Commission does not recommend this. Evidence shows that the market is already working to remove smaller aircraft that are not essential for supporting the passenger base required for larger aircraft on long haul routes and providing connectivity for more distant UK regions.

	Air Passenger Duty (APD) options	The Commission's view
45	<i>Reduce or abolish Air Passenger Duty:</i> This would reduce the level of Air Passenger Duty (or remove it altogether) to increase the financial viability of routes connecting the UK to new destinations.	The Commission did not feel that changes to the overall scale of APD were deliverable.
46	<i>Increase Air Passenger Duty:</i> This measure proposes an increase in Air Passenger Duty (or the introduction of equivalent new taxation) to reduce the demand for flying.	The Commission did not feel that changes to the overall scale of APD were deliverable.
47	<i>Devolve to Scottish and Welsh Governments:</i> This would allow the devolved administrations to set the rate of Air Passenger Duty that would be applied at Scottish and Welsh airports.	The Commission was concerned that this proposal had the potential to create market distortions between airport pairs such as Bristol/Cardiff and Edinburgh/Newcastle.

	Air Passenger Duty (APD) options	The Commission's view
48	<i>Apply to transfer passengers:</i> This proposal would change the rules surrounding Air Passenger Duty so that it applies to passengers connecting via UK airports without leaving the 'airside' area of the airport.	The Commission did not feel that the emerging analysis on the value of transfer traffic had made a case for this measure at this time.
49	<i>Regional variation of Air Passenger Duty:</i> This would apply a lower rate of Air Passenger Duty at airports outside of London and the South East.	The Commission considered 49 and 50 together, with a primary focus upon 50, due to the perception that there would be fewer legal barriers. The Commission does not recommend taking forward these options. While they create some benefits for less congested airport, the overall impact was likely to drive a shift towards smaller aircraft and constrain the UK's overall connectivity.
50	<i>Variation of Air Passenger Duty by airport congestion:</i> This measure would seek to apply a higher rate of Air Passenger Duty at highly congested airports, which could be used to offset a lower rate elsewhere.	
51	<i>Temporary Air Passenger Duty reduction or 'holiday' for new routes:</i> This proposal would make passengers using new routes exempt from Air Passenger Duty for an initial period (perhaps two years) or apply a reduced rate.	The Commission does not recommend this measure. The Commission noted the potential for 'perverse incentives' within this measure, as well as the potential legal (competition) obstacles.

	Air services agreements	The Commission's view
52	<i>Liberalisation of bilateral air services agreements to support the granting of Fifth Freedoms at regional airports:</i> This proposal would lead to the reduction or removal of the restrictions associated with air services agreements for air services travelling from an origin airport through a UK airport and on to third airport, where either or both of the origin airport or final destination is outside of the UK.	The Commission supports the Government's position but recognises it is not possible to go further within EU law.
53	<i>Liberalisation of bilateral air services agreements on a bilateral or unilateral basis:</i> This measure would reduce or remove the restrictions associated with bilateral air services agreements for point-to-point services between the UK and third countries, on a bilateral or unilateral basis.	The Commission did not consider that this measure was desirable, due to the likely State Aid issues.

	Surface transport options	The Commission's view
54	<i>'Code sharing' between airlines and rail operators:</i> This would enable the sale of integrated tickets that combine both air and rail portions into a single ticket and journey plan.	The Commission suggests that if airlines are interested in pursuing this measure, they discuss the franchise terms and conditions with the rail operator. The Commission is supportive of this measure in principle, but recognises that the Government lacks any real drivers to make this happen.
55	<i>Expansion of the UK high speed rail network:</i> This measure proposes the construction of new high speed lines between UK cities to provide an alternative to domestic air travel.	This is not technically within the Commission's remit for Phase 1, but it may consider high speed rail connections to specific airports as part of Phase 2.
56	<i>Provision of direct high speed rail services to more continental destinations:</i> This measure would lead to the introduction of high speed rail services between London (and potentially other UK cities) and continental cities beyond Paris and Brussels, to provide an alternative to short haul flights.	The Commission is supportive of efforts to extend the UK's high speed rail connectivity, but recognises that capacity constraints around the Channel Tunnel will limit the extent of what can be achieved.
57	<i>HS2 spur to Heathrow:</i> This proposes building a spur from HS2 into Heathrow Airport to improve the airport's surface access, particularly from non-London urban centres.	The Commission will return to this proposal in Phase 2.
58	<i>Enhanced rail links between existing airports:</i> These measures would be delivered through either the construction of new lines, or alterations to existing surface patterns to provide direct rail connections between existing London and South East airports, facilitating a 'virtual hub' concept.	The Commission does not believe that present or likely short to medium-term future demand would justify dedicated services between existing airports in light of the impacts upon congested commuter flows.

	Surface transport options	The Commission's view
59	<p><i>Other improvements to road and rail networks to improve access to Heathrow:</i></p> <ul style="list-style-type: none"> ● A range of proposals were submitted. These include: ● Complete planned Piccadilly line upgrade ● Create central London downtown air terminal adjacent to a key railway station ● Enable London Waterloo to Heathrow rail services from Eurostar platforms to T5 ● Relocate Heathrow's bus and coach station to an intermodal interchange on the motorway network ● Great Western main line western connection to London Heathrow ● Enhanced highway capacity between the South West and Heathrow (e.g. M4, M3, A3) ● Improvements to M25 corridor to ensure it is not a constraint on access ● A Piccadilly line service to Park Royal to interchange with Central Line ● New high speed rail station and terminal adjacent to the Great Western main line ● High speed monorail to Northolt (to support as a reliever airport) ● Southern Access Study to increase accessibility from the south to Heathrow 	<p>The Commission is supportive of those schemes the Department for Transport is already funding, such as Western Rail Access to Heathrow and Crossrail. The Commission will return to other surface access improvements for Heathrow as part of Phase 2, though options involving enhanced links between Heathrow and Northolt will not be taken forward. See also the Commission's view for proposal number 83 on Northolt.</p>
60	<p><i>Remodelling of Gatwick Airport station:</i></p> <p>This proposes improvements to the station, with a particular view to improving accessibility for passengers with luggage.</p>	<p>The Commission puts forward this measure as part of the short-term recommendations.</p>
61	<p><i>Enhancement of Gatwick Express:</i></p> <p>This would lead to the reintroduction of the 'dedicated' Gatwick Express service (without the onward journey to Brighton) and the provision of more suitable rolling stock.</p>	<p>The Commission recommends that there is no degradation of the current service quality on the Gatwick service and is supportive of refurbishing the rolling stock. It believes that the case for a dedicated 'not onward' to Brighton service may need to be revisited in Phase 2.</p>

	Surface transport options	The Commission's view
62	<p><i>Other improvements to existing road and rail networks to improve access to Gatwick:</i></p> <p>A range of proposals were submitted, including:</p> <ul style="list-style-type: none"> • Additional platform at Redhill to support more services to Reading • Incremental Brighton Main Line capacity enhancements • Old Oak Common interchange for linking Gatwick to HS2 • Increased Lower Thames Crossing capacity • Direct rail services between Gatwick and other London and South East airports • Highways Route Study of congestion pinch points (e.g. M25-M23 Interchange and M23-Gatwick turn-off) 	<p>The Commission is supportive of those schemes the Department for Transport is already funding, such as Redhill enhancements and the additional platform at Gatwick Airport station. The Commission is proposing the further enhancement of Gatwick Airport station as part of its recommendations. The Commission is further recommending that Government and Network Rail should accelerate the development of options for enhancing the Brighton main line and that Government and the Highways Agency should develop a network study with a focus on relieving capacity pinch points around the airport.</p>
63	<p><i>Improvements to existing road and rail networks to improve access to Stansted:</i></p> <p>A range of proposals were submitted, including:</p> <ul style="list-style-type: none"> • West Anglia main line improvements including 4 tracking in Lea Valley to allow for an increase in services and to achieve maximum 30 minute rail travel time to Stansted from central London • Reinstate rail link to Braintree to connect Stansted to the Great Eastern main line (and services on that line north or south to Felixstowe, Harwich and Thames Ports) • Route improvements on the A120/M11 and West Anglian railway line if there is expansion beyond current permitted levels • Direct rail services between Stansted and other London and South East airports • Monitor congestion levels around Stansted 	<p>The Commission is recommending a study into enhancing the rail line between London and Stansted as part of its <i>Interim Report</i>. It is also recommending that congestion levels on roads around Stansted be kept under review.</p>
64	<p><i>Take Crossrail/Crossrail 2 to Stansted:</i></p> <p>This measure is seeking to modify the existing Crossrail scheme or the proposed Crossrail 2 scheme so that it serves Stansted Airport.</p>	<p>Crossrail is at a relatively late stage of delivery. The Commission does not, therefore, believe it is practical to fundamentally alter the nature of the service at this stage by extending it to Stansted. Extension of Crossrail 2 to Stansted is likely to involve costs that could only be justified alongside Stansted expansion.</p>

	Surface transport options	The Commission's view
65	<p><i>Restored Whitacre Link to improve access to Birmingham airport:</i></p> <p>This would lead to the reintroduction of services on the (disused) Whitacre Link to enable better rail access to Birmingham Airport from different directions.</p>	The Commission is not convinced that there is a credible business case for this option.
66	<p><i>Other surface transport improvements relating to Birmingham airport:</i></p> <p>A range of proposals were received, covering heavy and light rail and roads. These include:</p> <ul style="list-style-type: none"> ● Improved HS2 interchange with Birmingham Airport ● Birmingham Gateway Project ● Coventry-Nuneaton line improvements ● London Midland speed enhancements (Project 110) ● Upgrades to enable 59 minute journey time Euston-Birmingham Airport ● Midland Metro to Airport; ● M42/Junction 6 improvements ● Birmingham New Street station baggage drop off (check in facilities). 	The Commission is supportive of those schemes the Department for Transport is already funding, such as the Birmingham Gateway Project and the London Midland speed enhancements. Road congestion around the airport should be kept under review. However, other options should be considered by Local Transport Authorities, primarily on their local social and economic benefits.
67	<p><i>Rename 'Birmingham International' station to 'Birmingham Airport':</i></p> <p>This measure proposes to rename station to facilitate journey planning for users unfamiliar with the airport.</p>	The Commission believes that if the Airport wishes to take forward this option, it should itself progress it with its local stakeholders and the train operator.
68	<p><i>Range of road and rail improvements to improve access to other airports:</i></p> <p>Proposals covering road and rail access to a number of other airports, including (but not limited to): Bristol, Bournemouth, Cardiff, Edinburgh, Glasgow, London City, Luton, Manchester, Manston, Newcastle, Southampton and Southend.</p>	The Commission recommends that some of these proposals are considered in further detail, specifically better accessibility to Glasgow. The Commission is supportive of ongoing work by the Department for Transport on schemes such as the Northern Hub.
69	<p><i>Check in/bag drop at rail stations:</i></p> <p>This measure would provide facilities for passengers to conduct check-in and bag-drop activities at stations serving airports, reducing the need for terminal capacity.</p>	The Commission believes that this measure may be worth considering alongside specific long-term options as part of Phase 2.
70	<p><i>Develop an integrated surface transport strategy:</i></p> <p>This measure would see transport planning strategy methodologies adapted to make more account of the needs of airports and users of aviation.</p>	The Commission is supportive of aviation needs being properly included in any future integrated surface transport strategy. The Commission invites the Department for Transport to consider this further.

	Options for financial incentives to promote behavioural change	The Commission's view
71	<i>Route development funds to promote new routes:</i> This measure would be intended to promote increased connectivity providing financial support for the introduction of new routes for a certain period of time (likely two years) after their introduction.	The Commission believes that there are significant practical and legal obstacles for the Government in doing this, but would support airports who wished to advance this option independently.
72	<i>Higher landing charges at congested airports:</i> This would lead to the introduction of a congestion charging element into landing charges at the busiest airports, to incentivise airlines to make greater use of other, less congested airports.	This Commission considers that this is undesirable for similar reasons to the use of 'APD congestion charging'.
73	<i>Market non-London cities as destinations in their own right:</i> This measure proposes a marketing campaign to promote inbound tourism to non-London UK cities, balancing demand for aviation capacity away from London and the South East.	The Commission support work to market UK cities as destinations in their own right.
74	<i>'Fly local' marketing campaign:</i> This measure proposes the launch of a marketing campaign to promote the use of local airports for journeys where they offer a viable alternative.	The Commission does not recommend this, on the grounds that it does not believe that it would be a helpful market intervention.

	Night flight and enhanced mitigation options	The Commission's view
75	<i>Night flights:</i> A range of measures have been proposed in relation to the night flights regime at Heathrow, Gatwick and Stansted airports seeking to increase, decrease or maintain the current number of air transport movements at the relevant airports.	The Commission is recommending a trial to smooth the early morning arrivals peak between 06:00 and 06:59 at Heathrow to allow for more flights between the 05:00 to 05:59 period to limit the use of both runways to those days when the most significant delays are experienced, thus providing more certainty for those not expecting to be overflowed as part of their half-day respite arrangements. Any further consideration of night flights will be undertaken by the Commission in Phase 2 as part of the development of the long-term options shortlisted.

	Night flight and enhanced mitigation options	The Commission's view
76	<p><i>Development of planning restrictions and section 106 agreements around airports:</i></p> <p>This measure supports the development of clear guidance on the planning, policy and compensatory action that would be considered appropriate to address significant environmental and community effects at the local level around airports.</p>	<p>The Commission considers that an Independent Aviation Noise Authority should have a statutory role in providing input to planning inquiries relating to new housing developments in the vicinity of existing airports. The Commission expects to consider this issue further in the next phase of its work as part of its assessment of the shortlisted long-term options.</p>
77	<p><i>Incentivise quieter aircraft through landing charges:</i></p> <p>This would see quieter aircraft being incentivised through a variable landing charge regime which saw louder aircraft being charged higher landing charges than quieter aircraft.</p>	<p>The Commission believes that these measures have merit in being further considered as part of Phase 2 as appropriate.</p>
78	<p><i>Introduce higher night time landing charges:</i></p> <p>This proposal would see the introduction of a variable landing charge regime which charged night aircraft movements higher landing charges than those operating during the daytime.</p>	
79	<p><i>Implement a quota count (QC) system for daytime air traffic movements and/or extend the quota count system to other airports:</i></p> <p>This measure proposes an expansion in the current use of QC categories as a method for incorporating noise management into airport capacity management. The QC system allows each night flight to be individually counted against an overall noise quota (or noise budget) for an airport according to the QC rating (i.e. the noisiness) of the aircraft used. This measure would extend this QC system to day time operations.</p>	<p>The concept of noise envelopes – including the implementation of a quota count system – will be considered further in Phase 2, taking account of the shortlisted options under consideration.</p>
80	<p><i>Introduction of a comprehensive noise compensatory regime at airports:</i></p> <p>This would lead to the development of an agreed noise compensatory package based on best practice across all airports.</p>	<p>The Commission considers that the role of an Independent Aviation Noise Authority should include responsibilities for advising the Secretary of State for Transport and the CAA in respect of appropriate noise compensation schemes. The Commission expects to consider this issue further in the next phase of its work as part of its assessment of the shortlisted long-term options.</p>

	Night flight and enhanced mitigation options	The Commission's view
81	<p><i>Development of a noise envelope concept:</i> This measure proposes the definition of a noise envelope around airports within which aviation growth could be managed with consideration for technology and operational changes leading to a reduction in noise impacts per plane.</p>	<p>The Commission will consider the concept of noise envelopes further in Phase 2, taking account of the short listed options under consideration. Noise envelopes could be an effective way of managing the noise impacts of any new airport or runway development.</p>

	Traffic distribution rules	The Commission's view
82	<p><i>Promote 'reliever airports' concept:</i> This would provide support and/or financial incentives to encourage the growth of airports providing dedicated support for the business and general aviation markets, with the potential additional benefit of reducing the use of congested airports for this traffic.</p>	<p>The Commission is supportive of the reliever airports concept. The Commission recognises that this may be the best way to cater for the needs of business users without disrupting the wider airport system. The Commission acknowledges, however, that the UK's competitive, privatised ownership model does not lend itself to a strict replication of the 'New York system'. The Commission recognises that airports such as Luton have successfully built their share of the business jet market and is not convinced of the need for Government intervention.</p>
83	<p><i>Promote use of Northolt to accommodate some Heathrow traffic:</i> This measure would make further use of RAF Northolt to accommodate some small aircraft that would otherwise use Heathrow, providing a fast, regular surface transport link (and potentially road improvements) between the two airports.</p> <p>More ambitious versions of this proposal would see the runway at Northolt lengthened (to allow for use by larger aircraft) and realigned (to reduce conflicts with Heathrow's airspace).</p>	<p>The Commission does not recommend this option. The Commission has concluded that Northolt's current runway length and alignment place significant restrictions upon its use. Furthermore, that the population affected by noise from increased operations at Northolt would be substantial, and that extending and realigning Northolt's runway would require planning processes of comparable length and difficulty to the construction of one net additional runway at Heathrow.</p>
84	<p><i>Introduction of a helicopter link between Heathrow and Gatwick airports:</i> This proposal is seeking to remove restrictions in place to allow for a fast and frequent helicopter link between Heathrow and Gatwick airports to facilitate a virtual hub concept.</p>	<p>The Commission does not recommend this. There is no clear evidence of substantial demand for interchange and a helicopter shuttle would not appear to represent a cost effective or environmentally proportionate solution.</p>