

CAA Response to 2019 Government Consultation Aviation 2050: the future of UK aviation

CAP 1813



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Introduction

1. On 21 July 2017 the Government announced¹ that it intended to create a new Aviation Strategy which would set out the long-term direction for aviation policy making for 2050 and beyond. It first published a Call for Evidence², within which it sought views from stakeholders on the approach the Government was proposing to take and the issues that it had identified, as well as on the specific policy proposal to support airports throughout the UK making the best use of their existing runways, subject to environmental issues being addressed. The CAA responded to the Call for Evidence on 12 October 2017.³
2. The Government subsequently published a 'next steps' document in April 2018⁴, setting out some of the specific issues to be considered as part of the policy development process. In December 2018, it published 'Aviation 2050: the future of UK aviation'⁵ a consultation document on policy proposals for the Aviation Strategy.
3. This document presents the CAA's response to the Aviation Strategy consultation, which was submitted on 20 June 2019. Its format mirrors the online form which was the Government's preferred method for responding to the consultation. The CAA's response best aligned with a subset of the questions and therefore not all questions will appear in the text.
4. This document differs from the CAA's formal response only in respect of: this introduction section; the inclusion of some formatting not supported by the online form; in Q21, the renumbering of the heading 'Slot Allocation' from 20.3 to 3.4 (bringing it into line with the numbering in the rest of the document); and updating a reference to this section in section 4.1.

¹ <https://aviationstrategy.campaign.gov.uk/>

² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/636625/aviation-strategy-call-for-evidence.pdf

³ <http://www.caa.co.uk/CAP1609>

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/698247/next-steps-towards-an-aviation-strategy.pdf

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/769695/aviation-2050-web.pdf

Chapter 1

Personal and organisational details

Personal details

Q1. Your name and email address (only used if we need to contact you).

Your name

██████████

Your email

████████████████████

Q2. Are you responding:

on behalf of an organisation?

Organisation details

Q3. What organisation do you work for?

Civil Aviation Authority

Q4. What type of organisation is this?

Regulatory body

Chapter 2

Build a global and connected Britain

Q5. This section contains questions on chapter 2 of the consultation document - Build a global and connected Britain. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

Liberalisation of air traffic rights

Airline ownership and control

Interchange (short term leasing of aircraft between airlines)

International standards

Airline competition

Q6. How should the UK use its global leadership and international influence to further the aims of the UK's aviation sector?

2.1 International Standards (Aviation 2050, paragraphs 2.6 – 2.18)

The UK's reputation for safety and security as well as our effective and proportionate approach to regulation and oversight is admired and valued internationally. However, UK citizens often fly on airlines and from airports that are regulated by other safety authorities from around the world, and the UK aerospace industry serves those carriers. Therefore, it is essential that we maintain our breadth and depth of engagement and influence, to improve safety standards across the globe and ensure the UK is included in conversations and groups planning for the future.

New industry cross-border operating models may increase in the coming years. These will require close cooperation between regulators, both intra-Europe and international. Governmental and regulatory collaboration and cooperation in relation to oversight and intelligence sharing will be essential. If the UK does not remain a European Aviation Safety Agency (EASA) Member State, we should aim to keep a close alignment to EASA regulations in the first instance, except in those cases where there is a robust justification to adopt a different position. This is because, other things being equal, the industry benefits from the efficiency and consistency that comes with greater regulatory alignment.

Q10. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)

2.2 Liberalisation of Air Traffic Rights (paragraphs 2.28 – 2.31)

The aviation industry, particularly in Europe and North America has come a long way in terms of liberalising air traffic rights from the days where Air Services Agreements (ASAs) strictly controlled flight frequencies and often airlines. Now, there are many liberal ASAs, such as the European Union's (EU's) common aviation area and United States (US) open skies. Although many of the UK's major aviation markets are some of the most liberalised, government is right to highlight the benefits of further liberalisation for the industry and the consumer, and that there is more that can be done. The Civil Aviation Authority (CAA) therefore supports the government's ambition to further liberalise air traffic rights.

However, it should be noted that liberalisation of ASAs is not always solely in the UK government's hands, and (on the basis that it is reciprocal agreements which deliver the most benefit) requires both sides to agree. Government will therefore need to be effective in making the case for liberalisation to those countries that are resistant to change. In the past, factors such as lack of access to Heathrow has made negotiation of liberalised agreements more difficult, and so there may be an opportunity in the coming years for government to make progress in these cases as more capacity becomes available.

2.3 Airline Ownership and Control (paragraphs 2.32 – 2.34)

The government correctly highlights airline ownership and control as another area where greater liberalisation could benefit industry and passengers through easier access to capital and new route opportunities for airlines. As far back as 2006, the CAA highlighted this issue in its report 'Ownership and Control Liberalisation: A Discussion Paper – CAP 769'. In this, we noted that introducing such freedoms for airlines should bring considerable benefits to the industry and its users and play a significant role in enhancing related global economic activity. However, there were potential downsides that needed to be protected against; in particular, to ensure that there is no diminution of safety standards, but also to protect against 'free-riders' and work towards regulatory convergence.

2.4 Interchange (paragraphs 2.35 – 2.38)

Aviation 2050 proposes to facilitate interchange (paragraphs 2.35-2.37) and defines this as short-term leasing of aircraft between airlines. The term interchange normally refers to dry leasing (where the aircraft is transferred between Air Operator Certificates (AOCs) but is crewed by the staff of the lessee). The CAA supports the government's view that interchange agreements (like many forms of liberalisation) are likely to offer benefits to airlines, but that it is of primary importance that such arrangements retain the appropriate regulatory insight and that the safety of passengers is not compromised. A potential risk with interchange is that the aircraft and crew may be subject to different countries' safety assurance regimes. The CAA will work with the Department for Transport (DfT) to find if a framework is possible that allows airlines access to the benefits of interchange whilst retaining the appropriate level of safety oversight.

Q10. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)

It is not clear from Aviation 2050 whether anything is proposed to facilitate wet leasing (where the aircraft continues to be operated under the AOC of the lessor airline). EU legislation restricts the wet leasing of aircraft from outside the EU. The CAA fully supports the safety rules in Regulation 1008/2008 Article 13 (3)(a), as maintaining a high standard of safety in such arrangements is paramount. However, other restrictions on wet-leasing of non-EU aircraft were significantly tightened by this Regulation in 2008 in order, we believe, to solve issues in other Member States occurring under the 1992 single market legislation. We believe that the tests in Article 13(3)(b) are unnecessarily protectionist and restrictive, have reduced UK carriers' flexibility and therefore competitiveness, and so can potentially negatively impact consumers. These restrictions can also have unintended consequences and present practical difficulties for their enforcement. Should the opportunity arise from the UK exiting the EU, we would therefore welcome greater wet leasing flexibility, subject both to maintaining acceptable safety standards, and there being no excessive dependence on aircraft from outside the UK/EU (which was the understanding under the 1992 legislation - see Council minute statement to the former Regulation 2407/92).

Furthermore, the EU has (in direct contrast to the 2008 rules) recently made provision for the imminent liberalisation of wet leasing between the EU and the US, and we welcome a similarly liberal arrangement under a future UK-US ASA.

2.5 Airline Competition (paragraph 2.40)

We agree in general terms with the conclusion in paragraph 2.40 of Aviation 2050. We consider that the fact that Joint Business Agreements (JBAs), like mergers, reduce the number of direct competitors on the routes where the parties operate or could operate in competition (route overlaps) is more important than the effects of Frequent Flyer Programmes (FFPs), as referred in that paragraph.

However, it is important to note that, in part, airlines do JBAs because they cannot merge due to ownership and control restrictions and other restrictions in International ASAs. JBAs have the potential of bringing significant consumer benefits, but it is important that the various effects which these agreements can have are carefully considered and weighed by competition authorities.

We note, in this context, that the Competition and Markets Authority (CMA) is currently investigating the transatlantic oneworld JBA and we are assisting the CMA with its investigation, as required.

Q12. What are the regulatory burdens that need to be managed and how might these be addressed?

2.6 There are a number of new roles or tasks for the CAA proposed in Aviation 2050. In general, the CAA is willing to accept these providing:

- The proposed role is a standard independent regulatory role that relates to flight
- There is policy clarity from government about the purpose of the powers
- There is sufficient legal powers to exercise the functions
- The CAA can resource the function effectively in terms of skills and expertise without detriment to its other priorities and proportionately in terms of finance through either a new or existing statutory charging scheme or a government grant under section 16 of the Civil Aviation Act 1982 (CAA82) or some other industry or public source.
- The role does not insurmountably conflict with other of the CAA's duties or the roles of other bodies.

Q15. Are you aware of any relevant additional evidence that should be taken into account?

No

Chapter 3

Ensure aviation can grow sustainably

Q17. This section contains questions on chapter 3 of the consultation document - Ensure aviation can grow sustainably. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

A partnership for sustainable growth.

Airspace modernisation

Resilience

Slots allocation

Carbon emissions

Air quality

Noise

Q19. How regularly should reviews of progress in implementing the partnership for sustainable growth take place?

3.1 Airspace Modernisation (paragraphs 3.15 – 3.29)

In terms of airspace modernisation, the CAA is already required to report on delivery progress annually to the Secretary of State (SoS). The CAA considers this to be sufficient for the purposes of the aviation strategy in this area.

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

3.2 Airspace Modernisation (paragraphs 3.15 – 3.29)

The CAA supports proposals to modernise airspace as part of a partnership approach to ensure that aviation can grow sustainably.

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

The government tasked the CAA with a key oversight role for airspace modernisation in 2017 and the CAA published a final Airspace Modernisation Strategy (AMS) in December 2018 to replace the existing Future Airspace Strategy. This includes a shared DfT and CAA objective for modernising airspace and a new governance structure to oversee delivery.

The AMS sets out the initiatives that the aviation industry must deliver to modernise UK airspace, such as the introduction of new technologies and the redesign of some areas of airspace. This strategy requires industry-led working groups to draw up delivery plans, with delivery overseen by the CAA. One such plan will be a macro-level co-ordinated implementation plan (an airspace change masterplan) detailing which interdependent airspace changes are deemed necessary and when.

The CAA believes that the government has correctly identified the key risk of a single airport or air navigation service provider holding up an entire or elements of a modernisation programme, either because it is unable or unwilling to take forward a necessary interdependent airspace change. The CAA considers that it is highly desirable that the government legislates for powers, such as those already consulted on in Annex A of Aviation 2050, to direct individual airspace change proposals identified as necessary in a masterplan to be taken forward.

3.3 Resilience (paragraphs 3.30 – 3.45)

The CAA welcomes the government's commitment to working with the Industry Resilience Group (IRG), which has already made significant progress working on a voluntary basis to promote a common data set, better situational awareness, consistent responses to disruption, and improved foresight of where problems may arise.

However, the CAA also agrees that the government should prepare for a situation where the voluntary efforts of industry have not been enough to ensure adequate resilience for the aviation sector and some form of more central control needs to be established or delegated. Further, we think that the government should immediately consider the sort of response that might be appropriate and put in place any legislative or regulatory powers as soon as possible. This is because, should the situation arise when such action is needed, it is likely that passengers will be suffering significantly increased delays and cancellations during the time that it takes to implement. Therefore, having preparations in hand will shorten this time and lessen the detriment to consumers. The CAA offers to work with DfT and industry to identify the appropriate form of such a systems operator and the conditions in which it would be implemented. Some options for the sort of actions which could be implemented are set out in the following paragraphs.

For these purposes, we consider a systems operator to be a body which can make decisions on the fair use of a scarce resource (in this case airspace) and has the means to enforce those decisions. Note that the method of 'enforcement' may take a number of forms (or a combination of them), which could include:

- prior permissions – for example, restrictions on slot allocation or usage where it is clear that the expected schedules from all the airports in an area are unlikely to be deliverable, or refusing or amending certain flight plans when they are submitted if it leads to overall better performance of the network. Clearly, it should be ensured that

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

any amendment to planned schedules or flight plans was distributed fairly between users or some fair compensation mechanism was used;

- market measures – for example, either providing compensation to airlines that voluntarily amended their preferred schedule or increasing the cost for those who did not. The most efficient way of implementing such market measures might be through the existing airspace charging process, although some testing would be needed to work out whether the feasible increases or decreases in airspace charges would be enough to change airline behaviour; or
- subsequent enforcement – for example, the use of fines or other sanctions (such as slot sanctions) for those airlines which do not follow a schedule that has been amended by the systems operator to protect overall network resilience.

We note that industry is already making steps towards such greater control:

- There are requests to find a mechanism to enforce better the DvC process (where some flights for the following day are proactively cancelled when events such as poor weather or strike action mean that it is known that the whole schedule cannot be completed) at Heathrow, and at other airports where something similar is being considered. This process only operates when there is prior knowledge of an external event (e.g. weather or strike action) which will mean the full schedule cannot be flown to plan, and so some pro-active cancellations will provide the best outcome for industry and consumers. However, adherence to this reduced schedule is voluntary and airlines incur greater costs from a cancelled flight than they are likely to suffer from a delay (even though the cost of the delay to all flights at the airport is likely to outweigh the cost of the proposed cancellations).
- During summer 2019, the Eurocontrol Network Manager is trying to alleviate capacity issues at European Air Traffic Control (ATC) centres by requiring a subset of flights to divert around the most congested airspace. In order for this to provide the desired alleviation of delays, it is important that all other flights stick to the flight plans which they have submitted (and on which the level and location of necessary diversions has been calculated) and are not allowed to change them subsequently.
- At airport systems such as London, there is a growing pressure to plan schedules with an understanding of the shared airspace capacity as well as the capacities of each airport. At present, the IRG works to combine the schedules prior to the start of the season in order to understand their impact on the airspace after slots have been allocated. Currently, this is undertaken solely for information and so airlines, airports and air traffic control all understand where the 'hot spots' for resilience are likely to occur, and can plan how best to address them.
- For the 2012 London Olympics, Euro 2012 football championships and 2013 Champions League final, Airport Coordination Ltd (ACL) used a slot and flight plan matching tool to pro-actively manage the allocation and distribution of the predicted traffic over these periods, and ensure that airport slots were respected. To do this, the UK requested Eurocontrol suspend any flight plan notified to it by ACL as having been filed for which no airport slot had been granted or the terms of the slot had not been respected.

However, these are all short-term responses to particular disruption events. A systems operator in the sense we are proposing would have the option to intervene at any time, even when the schedules for the season are being developed and finalised. The CAA understands

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

that industry would find this a significant change from the current situation where airlines are only restricted in their use of routes and flightpaths by the availability of airport slots and their own internal airframe and flight crew scheduling.

The CAA is not proposing such a system is implemented by government straight away, only if the delays and cancellations caused by increasing traffic and congestion at UK and European airports, and the harm suffered by consumers as a result, became sufficiently great to warrant it. What the CAA is proposing is that government, in consultation with industry, looks into how such a systems operator should be set up and progressed with any new legislation or regulation which would be required by it. In that way, should there be a need to stand up such an operator, government would be able to do so with minimal delay, to the greater benefit of consumers.

3.4 Slot Allocation (paragraphs 3.46 – 3.59)

3.4.1 Summary

General – we welcome the government’s focus on slots relating to new capacity as the current regime is largely untested and may not be designed to handle such a volume of slots being released at highly constrained airports. Our priority is that any changes to the slot regime do not negatively impact the timely and orderly delivery of new runway capacity at Heathrow airport (and other airports that may consider seeking planning permission for capacity expansion). The interactions between any changes to the slot regime and the CAA’s price control for Heathrow expansion will need to be carefully considered by the government. Particularly for the more ambitious changes being considered, the government should be clear what problem it is trying to solve. Industry support for any changes to the existing regime will also be important, particularly from the airline community.

Options for reform

- We welcome the government’s proposals to provide ACL with guidance on the definition of ‘airport system’, the objectives for the allocation of newly-created slots, and on the re-timing of existing slots.
- Among the other measures to facilitate effective competition and efficiency on which the government is seeking views, we welcome the proposals to consider issuing guidance on secondary trading and changing the existing ‘new entrant’ rule
- While we recognise the theoretical benefits from market-based allocation mechanisms, in particular auctions, such mechanisms would need careful design and testing to avoid any unintended consequences or practical difficulties. The consideration of more ambitious reforms should not delay or divert attention away from progress on administrative changes to the existing regime.

CAA’s role in slot allocation

- Before commissioning an in-depth study or review of slot allocation by the CMA and/or the CAA, we encourage the government first to define more clearly the problem(s) with the current regime and the policy objective for change. Once this is done, the most appropriate body(s) to carry out the study may then become clearer.

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

- Regarding the government's proposal on the possibility of giving the CAA a more formal slot allocation role, while we are not specifically seeking such a role, we are happy to discuss with government, whether there is a helpful role in slot allocation consistent with our statutory duties and role that we can fulfil.

3.4.2 Key points

3.4.2.1 General

We note that the CAA does not have a formal role in allocating slots. We have viewed government's proposals through the lens of our economic regulation and competition functions under the Civil Aviation Act 2012 (CAA12) including our general duty to further the interests of passengers and cargo owners under CAA12.

We note the government's views that current regulations may not produce the best consumer outcomes in the event of a release of significant new capacity at highly constrained airports, such as for Heathrow expansion. In this regard, we welcome and encourage its focus on slots relating to new capacity as the current regime is largely untested and may not be designed to handle such a volume of slot release at a highly constrained airport.

We have consistently stated that additional runway capacity in the South East of England is needed to benefit air passengers and cargo owners. The timely delivery of more aviation capacity is required to prevent future consumers experiencing higher airfares, reduced choice and lower service quality. The CAA's priority is that any change introduced to reform the slot regime does not negatively impact the timely and orderly delivery of new runway capacity at Heathrow airport, and other airports that may consider seeking planning permission for capacity expansion. In this regard, the interactions between any changes to the slot regime and wider processes (including the CAA's price control for Heathrow Airport Limited), and subsequent implications, will need to be carefully thought through by DfT. We welcome the opportunity to engage with DfT on this issue as it develops its proposals.

When contemplating changes to the slot regime, particularly more ambitious changes, the government must be clear what problem it is trying to solve. We are not convinced that, at present, that problem is sufficiently well defined. We would suggest a focus on concerns that the slot regime may not be well suited to handling high volumes of slot release at a slot constrained airport.

We consider it will be helpful to get industry support for any change to the existing slot regime, while recognising that different airlines, and potential new entrants, may have different interests and perspectives. We therefore welcome the government's proposal in paragraph 3.54 to work constructively with the industry to consider how to develop the existing slot allocation system.

The government's freedom to act outside the EU Slot Regulation will, of course, be wholly dependent on the post-transition arrangements negotiated between the UK and the EU.

3.4.2.2 Options for reform

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

We note the conclusions reached in the CMA's paper looking at the impact of the current allocation arrangement on competition from a theoretical perspective. The CAA has long advocated transparent secondary trading of airport slots as helping to rectify, over time, any inefficiencies arising from the administrative allocation system. While we also recognise the theoretical benefits from other market-based allocation mechanisms, in particular auctions, we note that such mechanisms would need careful design and testing to avoid any unintended consequences or practical difficulties for the industry, and so could be complex to set up. While the government has identified some administrative system changes that could help to promote its primary objective of facilitating effective competition, the CAA notes that there are some risks that auctions could be less effective in facilitating competition (for example because the costs and complexity of entering the auction could deter potential entrants, or because of various reasons why large, well-established airlines might bid higher than smaller airlines or potential entrants). It would be important to consider such risks carefully. Crucially, in the context of Heathrow expansion it will also be important to ensure that any such mechanisms do not negatively impact the timely and orderly delivery of additional capacity.

Administrative system changes

We welcome the government's proposals to improve elements of the administrative allocation system to enhance transparency, provide airlines with increased clarity and certainty and to ensure a process which is as legally robust as possible. In particular, we consider the government should:

- a. Provide ACL with greater guidance around its use of discretion in deciding between competing slot bids when allocating significant new capacity at highly constrained airports. However, in setting objectives for the allocation of newly created slots, the government should resist the temptation to second-guess the market by being overly interventionist or prescriptive in the choice of airlines or routes. We would generally advocate a light-touch regulatory approach. In this context, the principles of neutrality in paragraph 3.53 must be paramount.
- b. Provide specific guidance to ACL on the definition of 'airport system' in the new entrant rule. We note that had the (currently dormant) 2011/12 recast of the EU Slot Regulation become law, the airport system concept would have been deleted, with the UK's (including CAA's) support.
- c. Follow current EU rules and International Air Transport Association (IATA) guidelines that re-timing by incumbents of existing historic slots occurs before new capacity is added to the slot pool.

Secondary trading guidance

We also welcome the government's proposals to consider issuing guidance on secondary trading to increase transparency and therefore market fluidity, and to consider changing the existing new entrant rule to better allow new entrants or smaller incumbents to build a presence at constrained airports. The CAA believes it is important that any consideration of

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

more ambitious reforms does not delay or divert attention away from progress on these measures or the administrative system changes discussed above.

Market-based mechanisms

Paragraph 3.57 also lists some more ambitious potential changes. We recognise the theoretical benefits of market-based mechanisms for the allocation of newly released additional capacity, but, as explained above, we would urge caution as careful design would be needed to realise those benefits while avoiding unforeseen consequences or practical difficulties for industry. The bullets in paragraph 3.57 make a number of suggestions, each of which will have pros and cons, and the impacts of which would need to be properly assessed. Airlines are likely to have strong views about the impact of removing grandfather rights on their investment decisions, and about greater clarity around property rights acquired with a slot. It would be very important to carry out a thorough assessment of any risks to effective competition from restricting the grandfather rights on some new slots while leaving those on existing slots unchanged.

Regarding some of the other measures listed in paragraphs 3.57 and 3.58, we would argue that environmental goals (as distinct from the competition and efficiency goals suggested) could be best achieved through more suitable mechanisms than the slot allocation system because of the inherent fungibility of slots. An option not listed is allowing non-airline interests, such as regional bodies, to buy and hold slots, thus enabling the wider value of slots to be properly reflected in the allocation.

3.4.2.3 CAA role in slot allocation

Aviation 2050 leaves open the possibility of proposing an in-depth study/review of slot allocation to be done by the CMA, CAA or a combination of both. Before commissioning such a study, we would encourage the government to define more clearly the problem(s) with the current regime and the policy objectives for change. Once this is done, it may then become clearer who the most appropriate body(s) to carry out the study are.

Paragraph 3.64 of Aviation 2050 raises the possibility of giving a more formal slot allocation role to the CAA. While not specifically seeking such a role, we are happy to discuss with government, if there is a helpful role in slot allocation consistent with our statutory duties and role that we can fulfil. For example, building on our competition and economic regulation roles, the CAA can see merit, in principle, in the CAA and/or DfT giving advice to the coordinator on how slots that are the subject of competing bids could be allocated so as to best foster competition, meet market demand, and therefore benefit the consumer most effectively – perhaps in the form of published guidance.

3.5 Single Airline Dominance at Airports (paragraphs 3.60 – 3.65)

We note government's proposal to give the CAA an enhanced role in the monitoring of airline services and competition which would give us the "scope to intervene in some way if problems arise in the future, even if there are no current concerns". The government also

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

notes that such a role could take the form of greater cooperation with the CMA on airline services with or without full concurrent competition powers.

We have had competition powers over Air Traffic Services and Airport Operation Services since 2001 and 2013, respectively. Our jurisdiction, particularly in relation to Airport Operation Services is tightly defined (in sections 66 to 68 of the Civil Aviation Act 2012). From our recent experience in making use of these powers, we consider that it would be helpful to have these powers defined more generically so that we may prioritise enforcement action or launch market studies over all issues that are connected to the provision of airport operations and air traffic services without facing risks of jurisdictional challenge. In defining our competition jurisdiction in this way, the CAA might also be able to use its competition powers to prioritise market studies over a wider range of competition issues. Defining our powers more generically would bring the definition of the CAA's powers more in line with those of other sector regulators.

We already informally cooperate closely and effectively with the CMA on airline competition issues and will continue to do so even in the absence of further statutory functions being given to us. We consider that any extension of our competition powers should be grounded on existing arrangements of the UK concurrency regime, rather than creating a separate set of arrangements. We would also encourage close cooperation with the CMA in the development of any extension of our powers.

We are not actively seeking to extend the CAA's competition functions to include Air Transport Services (i.e. airlines), although we can see both some merits and some drawbacks in doing so. We are not aware of any significant concerns with how the CMA currently fulfils this function in relation to airlines.

We expect that, for us to be able to effectively use additional competition functions in relation to airline services, we would require additional resources and would need to consider the means to raise the charges needed to discharge those functions. If we are given full concurrent competition powers over airline services, the CAA might be expected to investigate some of the potential future airline cases under the Competition Act 1998 (CA98). Such cases can often be relatively complex and are very likely to have an international dimension, which might mean that the CMA would be better placed to undertake them, or if we undertook them, we would work closely with the CMA. Currently, most of the significant airline cases are taken by DG COMP (the European Commission department responsible for EU competition policy and enforcement), although the UK aspect of those cases is expected to be investigated by a UK competition authority following the UK's departure of the EU.

We can already undertake some work on airlines (including studies of competition issues) for DfT under section 16 (S16) of the CAA82 at the request of the SoS. However, we do not have formal information gathering powers to discharge S16 functions. This can be an important limiting factor when the SoS is considering asking the CAA to undertake work under S16.

We would note that, even if the CAA were to get additional competition powers over the airline sector, they would not place new legal or regulatory obligations on industry, as CMA already has competition functions to intervene in this sector. The question is more whether it would be good for a regulator to have those powers, which might lead to prioritising more

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

competition work in the airline sector (if the CMA was not able or willing to prioritise undertaking such work). Currently, our concurrent competition powers are more aligned with the specific areas where we have economic regulation functions (airport operation and air traffic services), areas where the CAA is already expected to have a level of expertise that could help facilitate the delivery of competition functions.

Extending the CAA competition functions to airlines would enhance the CAA's toolkit to intervene in aviation issues and give us more leverage over airlines to address issues affecting consumers. It would also allow the CAA to consider competition issues over a broader area of the aviation value-chain.

In conclusion, while it may be reasonable to extend the CAA's competition functions in relation to airlines, there are arguments for and against doing so. If government is considering giving the CAA an enhanced competition role over the provision of Air Transport Services, we consider that is important to do so in a way that is consistent with and does not cut across the existing competition concurrency regime. Some of options which could merit further consideration are:

- Status quo: Not changing the CAA's role over airline competition, although government might still want to consider expanding the scope of our current competition powers, as noted above.
- Monitoring: Extending section 64 CAA12 and section 91 of the Transport Act 2000 (TA00) functions to include Air Transport Services. Section 64 functions currently include keeping under review the provision of Airport Operation Services and the provision of information, advice and assistance to the SoS and the CMA. Section 91 of TA00 also gives us similar powers in relation to Air Traffic Services. Alongside the above, it may be appropriate to consider giving the CAA information gathering powers to better enable us to discharge such a monitoring role and to do so for S16 of CAA82 functions.
- Partial concurrency functions: Giving the CAA concurrent Enterprise Act 2002 (EA02) powers (the potential to do Market Studies and refer issues to the CMA) but not CA98 powers over airline services. We consider that it would be quite novel for the CAA to be given some but not the full range of concurrent competition functions, as we are not aware of other sectoral regulators having EA02 competition functions but not CA98 functions. However, it may be an option worth considering, particularly if government sees merit in aligning our market study functions with our consumer powers under EA02 (which already cover Air Transport Services). We note that CMA has recently made proposals for a strengthening of the enforcement of consumer law and for reforming the markets regime in a way that allows for quicker interventions to stop market-wide consumer detriment.
- Full Concurrency: extending CAA's full concurrent competition functions to include Air Transport Services.

As noted above, we are not aware of any significant concerns with how the CMA currently undertakes competition powers for airlines. But, if the government is minded to extend our powers, we would tend towards favouring the enhanced monitoring option set out above, recognising that in due course partial or full concurrency options could be introduced if that was considered to be appropriate at a later date.

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

3.6 Carbon Emissions (paragraphs 3.77 – 3.97)

The CAA welcomes the government's proposals in respect of carbon emissions and recognises the global importance of this issue. We also note the recent Committee on Climate Change (CCC) report on climate change and that the CCC will be producing a letter to the SoS outlining how it thinks aviation should respond to the climate challenge.

The CAA's role in regard to climate change is currently quite a limited one. We follow government policy and guidance on carbon emissions in making decisions about airspace change. We have a role in advising the government on the reduction of the industry's carbon emissions, the sharing of best practice, and the development of international initiatives such as emissions trading which is designed to address climate change. Outside the aviation sector, the CAA also has an impact on the planning of wind power in the UK.

The CAA will help the government consider the implications of the responses to this consultation and its policies on carbon emissions within our skills and remit and looks forward to assisting government on its aviation policy in respect of environmental issues.

3.7 Air Quality (paragraphs 3.123 – 3.127)

The CAA welcomes the measures which the government proposes to address aviation's contribution to local air quality issues, and will assist the government where we can. However, the CAA's role on air quality is currently secondary to that of the government and local authorities, who are statutorily empowered to engage on air quality issues. Where appropriate, the CAA gives consideration to air quality when making other regulatory decisions - particularly for airspace change, when establishing best practice for operators and when helping to influence new technology standards.

3.8 Noise (paragraphs 3.102 – 3.122)

The CAA welcomes the government's proposal to strengthen and clarify the noise policy framework. We would like to support the DfT by collaborating with it to develop the necessary metrics and policy guidelines.

In recent years, the CAA has reviewed and strengthened its strategy and policy on airspace modernisation and regulation, including a new AMS (CAP 1711, published December 2018) and a new airspace change decision-making process (CAP 1616, published December 2017). In both of these areas of our work, we have scrutinised our role relating to the environmental impacts of aviation, particularly the complex issues around aviation noise. Both of these strategic and regulatory reviews recognised the importance of limiting and where possible reducing the adverse effects of noise on health. We welcome the government's greater focus on noise and environmental policy issues in this consultation.

In commenting on the specific noise proposals in this chapter, we have focused on our regulatory role and the way in which the policy proposals would interface with our role. Having recently undertaken several public consultations and engagement exercises through our own work on airspace, we have also shared insights – where we feel it is useful to do so

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

– on our own experiences of the expectations and requests we have received from stakeholders affected by aviation noise.

3.8.1 Setting a new objective to limit, and where possible, reduce total adverse effects on health and quality of life from aviation noise

We welcome the alignment between noise and its impact on health. This would align noise policy with airspace policy which is already reflected in the CAA's airspace change decision-making process, through the use of WebTAG to analyse evidence about the health impacts of different airspace design options. It is important to note the proposal is for an objective not a threshold, which means that the policy can be reflected in airspace change decisions, but is not currently an enforceable threshold.

3.8.2 Developing a new national indicator to track the long-term performance of the sector in reducing noise; and

Routinely setting noise caps as part of planning approvals (for increase in passengers of flights)

We welcome the introduction of a mechanism to track noise performance nationally, but believe the DfT's policy will have to go into further detail about the purpose and operation of the indicator. As currently described, it could take one of two quite different forms: a voluntary scheme based on information and transparency, or a more prescriptive approach designed to drive agreed outcomes.

If the indicator is a voluntary scheme through which airports publish noise performance and compare it with the national indicator, it will be important to establish what happens with that information. It would be useful to clarify who will be responsible for publishing data, who will check the data has been published within the agreed time frame and who will evaluate the data to ensure that it is consistent and of a good standard. Will performance be reviewed periodically and will the indicator change if performance improves? If airports exceed the indicator (i.e. produce more noise) will the DfT or another organisation take any action? As we have learned through our stakeholder engagement, stakeholders affected by noise greatly value certainty (i.e. clarity about how such measures are set and confidence that their expectations will be adhered to).

It is important to note that a national indicator would not currently be a binding policy that the CAA would be able to reflect in airspace change decisions. Unless there is a government policy that noise should not exceed a given metric, the CAA would not be in a position to refuse an airspace change on the grounds that it exceeded that metric. In other words, a noise indicator that is tracked through information does not impose a threshold that must be adhered to operationally.

If the DfT opted for a more prescriptive approach, such as a noise metric focused on reducing total adverse health effects, then noise caps would be the required applicable measure. Caps should be set locally to take into account local circumstances. National caps would add unnecessary complexity, because they would require a mechanism for

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

disaggregating them across airports and forcing decision about priorities between different airports.

We acknowledge the complexity of setting a noise cap, based on the government's description of noise management in paragraphs 3.104–3.106 of Aviation 2050. However, because caps would be based on the objective set out at the beginning of paragraph 3.115, we would expect to see noise caps that are designed to limit and where possible reduce the total adverse effects of noise on health (i.e. monitors that are based on health measures rather than on the geographical area exposed to noise or the population inside those areas).

Assuming a policy in which noise caps are set locally by planning authorities, it will be crucial for the government to set a clear methodology and policy that applies across all planning authorities. Although the cap would be local rather than national, the means for setting it and the policy outcome it is designed to achieve must nevertheless be aligned at a strategic, national level. We suggest this because the CAA is likely to have to help enforce the cap when it makes airspace change decisions. We will therefore need to update our airspace design guidance (CAP 1616) to ensure that an organisation proposing an airspace change shows us rigorous evidence that the cap will be met, and how.

While airspace changes will have to be made in light of the cap (i.e. will help to enforce it by ensuring airspace design does not create noise above the levels of the cap), it is still the case that air traffic, and the way in which the airspace design is used, will change over time. This means that the cap will require regular monitoring. Following an airspace change, the CAA conducts a Post-Implementation Review. Because this is a one-off review to check whether the change is performing as expected, it is unlikely to be a suitable means of monitoring compliance with the noise cap. The government guidance will therefore need to set out how to achieve this monitoring, as well as the means for regulatory enforcement.

We support the requirement for a realistic regulatory enforcement mechanism, backed by appropriate, effective and proportionate statutory powers (if the mechanism is not proportionate, there is a risk that it will not be used; for example, if it limited the airport's ability to operate in a commercially viable way). This would provide communities with the assurance they need that the levels of noise they are exposed to are predictable and follow an agreed framework. The CAA would be happy to discuss further with the DfT whether we could help to provide the necessary regulatory enforcement, drawing on our existing regulatory enforcement role in other areas.

3.8.3 Requiring all major airports to set out a plan which commits to future noise reduction, and to review this periodically

We welcome the introduction of noise plans for airports. We note that the action plan process will require enforcement powers. We would like the government to clarify what powers would be needed for an airport-led review.

3.8.4 Developing tailored guidance for housebuilding in noise sensitive areas near airports; and

Q21. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

Improving flight path information for prospective home buyers so that they can make better informed decisions

We welcome both proposals as they provide information that is directly relevant and specifically tailored to those who need it. The CAA publishes some information on noise and other environmental impacts on our website, as a result of our Information Duty (contained in CAA12). However, this new policy proposal would help people receive the information more directly, rather than relying on their decision to search for information themselves. It is therefore a useful intervention in helping make people aware of the environmental impacts of aviation that may affect them.

3.8.5 Proposing new measures to ensure better noise outcomes from the way aircraft operate, by increasing uptake of best practice operating procedures and improving compliance with mandatory controls

We support all the points listed under this proposal, but we would find it useful for government to clarify whether it intends them to be best practice in the form of guidance or enforceable requirements.

Create minimum standards for noise monitoring around airports

In the CAA's airspace design guidance (CAP 1616, pp 97–106), there is guidance on 'Airspace information: transparency about airspace use and aircraft movements'. This guidance sets out information we believe the aviation industry should publish on the noise impacts of its operations. The scope of the information we suggest publishing was developed through stakeholder engagement. It might be the case that the new policy proposal goes further than this guidance on information publication; it would be useful for further detail on the policy, if taken forward, to reflect the relationship to existing noise monitoring and information provision.

Introduce new powers to direct airports to publish information, such as league tables of airline noise performance

The creation of new powers would help to extend and/or specify the information that airports publish. The CAA publishes some information on noise and other environmental impacts on our website, as a result of our Information Duty (contained in CAA12). New powers could lead to airports publishing more information themselves, and with more specific data than the CAA is currently able to collect.

Q22. How should the proposals described be prioritised, based on their importance and urgency?

3.9 Airspace Modernisation (paragraphs 3.15 – 3.29)

Q22. How should the proposals described be prioritised, based on their importance and urgency?

The CAA considers that it is highly desirable that government legislates for powers to direct individual airspace change proposals identified as necessary in a masterplan to be taken forward. Without this legislation, key elements of an airspace modernisation programme could be held up.

The CAA also supports the proposal for the government to ask the Independent Commission on Civil Aviation Noise (ICCAN) to consider how it can best support communities in engaging with the airspace change process. Many of the other stakeholders relevant to airspace change have specialist expertise or, through their professional roles, access to expertise and representation. Communities will not have this, so it is important that industry makes information as accessible as possible. The CAA has already revised its airspace change process (CAP 1616) to include clearer requirements on how airspace change sponsors can help make their engagement and consultation accessible to people without technical expertise, to make sure they understand how the proposals will affect them and can seek to influence the proposals appropriately. The CAA expects airspace change sponsors to be mindful of ICCAN's role and guidance throughout the airspace change process.

Q23. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)

3.10 Airspace Modernisation (paragraphs 3.15 – 3.29)

The CAA agrees with the government's assessment that there are further risks in terms of funding support and skills shortages in taking forward necessary airspace changes. These should be monitored and managed through the new airspace modernisation governance structure.

Q25. What are the regulatory burdens that need to be managed and how might these be addressed?

3.11 See answer to question 12 (section 2.6 above).

Q27. Looking ahead to 2050, are there any other long term challenges which need to be addressed?

3.12 Airspace Modernisation (paragraphs 3.15 – 3.29)

Q27. Looking ahead to 2050, are there any other long term challenges which need to be addressed?

The AMS published in December 2018 sets out the ends, ways and means of modernising airspace, initially focussing on the period until the end of 2024.

The AMS identified a number of challenges which need to be addressed including noise policy and potential reduction targets, emerging international policy as the UK exits the EU and policies on emerging innovations or disrupters in airspace, such as drones.

Where the CAA's work in preparing its strategy and reporting on it annually reveals the need for trade-offs and there is no relevant noise policy guidance, we will seek guidance from the government through the new Airspace Modernisation governance structure.

The CAA intends to spot and plan for these by continuing to work with government in reviewing and developing it's AMS regularly and by using horizon scanning to become aware of new technologies, trends or changes that could affect how airspace is designed and used.

Q28. Are you aware of any relevant additional evidence that should be taken into account?

No

Chapter 4

Support regional growth and connectivity

Q30. This section contains questions on chapter 4 of the consultation document - Support regional growth and connectivity. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

Regional connectivity

Regional employment and skills

Q33. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

4.1 Regional connectivity (paragraphs 4.6 – 4.31)

See earlier comments on slot allocation (section 3.4 above).

4.2 Regional employment and skills (paragraphs 4.51 – 4.84)

The CAA welcomes the proposals put forward by the government to increase the levels of diversity and inclusion in the aviation sector. This is an area of key focus for the CAA from both an internal and external perspective. Internally, we are working on local and CAA-wide initiatives to create an environment and culture where all colleagues can bring their whole selves to work and give their best. We are committed to being a diverse and inclusive employer and for our organisation to reflect better the diversity of the people we protect. We also want to help support change in the wider aviation industry. As such, we are a proud signatory of the Women in Aviation Charter and are looking for opportunities to encourage more organisations to join the Charter and progress the aims of the Charter. We also recognise that the CAA has a role to play in developing the next generation of talent, especially in science, technology, engineering and mathematics (STEM) subjects and we have used events such as the Duxford Air Show, visiting schools and partnering with other organisations such as the Royal Aeronautical Society to build STEM engagement. We would be happy to collaborate with the government on diversity and inclusion initiatives that it identifies as part of its aviation strategy.

Q37. What are the regulatory burdens that need to be managed and how might these be addressed?

4.3 See answer to question 12 (section 2.6 above).

Q40. Are you aware of any relevant additional evidence that should be taken into account?

No

Chapter 5

Enhance the passenger experience

Q42. This section contains questions on chapter 5 of the consultation document - Enhance the passenger experience. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

Passenger charter.

Passengers with additional needs

Disruptive passengers and alcohol

Experience at the border

Delays, complaints and compensation

Airline failure

Booking information

Q43. To what extent does the proposed Passenger Charter adequately address the issues that are most important to passengers?

5.1 The aviation sector in the UK is very competitive and, in most instances, UK consumers are able to choose between different airlines and airports, especially when travelling to and from Europe. According to the CAA's Aviation Consumer Survey, 71% of those surveyed in 2018 reported being satisfied with the amount of choice between UK departure airports and 68% between the choice of airlines. Competitive markets are able to respond to consumers' demands, as evidenced by the fact that 82% reported being satisfied with the overall travel experience of their last flight.

There are some significant areas where regulatory action is required to ensure compliance with legal requirements and to promote accessibility for all. The subjects identified by the government for inclusion in the charter are all potentially significant for consumers for these reasons. The CAA agrees that the proposal to incentivise industry to deliver improved consumer outcomes through a voluntary commitment backed up by strong governance and transparent monitoring could be an effective measure to address these.

The CAA supports the policy of providing consumers with more information about the performance of airlines and airports as it is important to help them make informed decisions, although we note that there will be limits to the amount of information passengers can consider. To be useful to consumers, the CAA believes that this information must be

Q43. To what extent does the proposed Passenger Charter adequately address the issues that are most important to passengers?

presented in a concise fashion and limited to specific performance information which we are confident that consumers want and need to help make their purchasing decisions. The CAA would encourage the government to consider carefully the communications format for industry performance measures when developing these proposals. The aim of driving consumer behaviour will be best met if the performance information is presented in such a way that it can be easily assimilated, for example through ranking or an online comparison tool.

The CAA has experience of the motivation provided to businesses whose performance will be publicised, especially when this performance can be measured against their competitors. However, our experience also shows that there are some elements of the industry which do not engage in such exercises and for which clear legal obligations are the most effective tool. The CAA is therefore reassured that the government states that it would consider regulating for improved outcomes if standards that customers have a legitimate right to expect do not improve through the voluntary charter commitments. This would be a key step, changing the boundary between regulated and non-regulated activity, so would need to be carefully considered.

Q44. How should the operating model for border service be designed to improve the passenger experience?

5.2 The CAA does not have a role in the service provided to passengers at the border, but we support any initiatives to improve the passenger experience in this area. We would urge the government to ensure that consumers are included in the development of these proposals, including those with specific mobility needs and hidden disabilities, so that the operating model can be designed to minimise the potential stress created when accessing the border service for these passengers and other vulnerable consumers.

Q45. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

5.3 To maximise its impact, the CAA suggests that the proposed charter is targeted and outcome focused, and split clearly between areas of rights backed by enforcement and areas of information to improve comparability and decision making. For each topic proposed for inclusion in the charter, best practice should be stated in reference to what that behaviour is aiming to achieve for consumers and, wherever possible, the performance measure should be based on that outcome and not on adherence to a set of procedural requirements.

The CAA would urge the government to use satisfaction targets in reference to specific activity, such as satisfaction with complaints process or with special assistance provided. We do not believe that the overall satisfaction levels quoted in Aviation 2050 are an effective

Q45. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

measure of outcomes as there may be a range of factors beyond the scope of the charter and remit of UK government agencies that could affect the score.

When considering what performance data is needed and how it should be produced, it is important that businesses are held responsible for production of the data and that it is made available in a format that can be used by a third party to present comparable information. Whilst the nature of the charter will likely lead to it setting out minimum standards for the aviation industry, government should also be aware that different consumers value different levels of quality of service. It would therefore be helpful to ensure that any suite of performance metrics also takes account of the quality aspects of the passenger experience.

Q46. How should the proposals described be prioritised, based on their importance and urgency?

5.4 The CAA believes that priority should be given to the areas of greatest importance to consumers and where the measures can have the greatest impact. We therefore consider the areas of highest priority to be accessibility, standards for notification of delays and compensation claims, and standards for complaint handling.

5.4.1 Accessibility

The CAA sees the inclusion of accessibility measures in the proposed charter as a priority. The CAA recognises the challenges faced by passengers with additional needs and continues to focus activity in this area in order to support such passengers' access to air travel. The development of the charter provides an opportunity to collate a range of accessibility guides and requirements in a single place and to promote further the significant foundation work already undertaken by the CAA and industry in this area.

The CAA also believes that the charter could provide an opportunity to raise awareness amongst passengers of the assistance available to them and the benefits of pre-notification. Any activity that encourages more passengers to make their needs known in advance is a positive step and an area that the CAA would be happy to consider further with the government as these proposals develop.

We also welcome the expansion of our enforcement powers proposed in Aviation 2050 which will allow us to fine for breaches of Regulation [EC] 1107/2006. The CAA's sectoral powers in general are currently quite limited and we do not have the ability to impose financial sanctions, which means we have limited flexibility in our toolkit. The proposals to extend our powers in this way will provide a valuable addition to our toolkit and we will continue to see what other opportunities may be available to ensure we can take a targeted, effective and proportionate approach to enforcement.

Proposals which require changes to aircraft design and manufacture (and associated certification), such as those to develop a certified air-worthy wheelchair standard and docking

Q46. How should the proposals described be prioritised, based on their importance and urgency?

station system, will necessitate changes of legislation at an international level to ensure interoperability for passengers.

5.4.2 Standards for notification of delays and compensation claims

When passengers are affected by disruption, it is important that they have been made aware of the delay or cancellation in a timely fashion and can take appropriate measures to mitigate dis-comfort or inconvenience. They should also be able to take full advantage of their right to assistance and/or refreshments in the event of disruption because they are well informed by the airline, and can access the right to compensation with a straightforward claim process.

Clear information provision is essential during disruption to reduce stress and ensure passengers can access their legal rights. The CAA recognises that clear best practice based on legal requirements should be adopted by industry and could be incorporated into the passenger charter. Identifying poor performance and ranking businesses following a compliance assessment have been used to improve industry behaviour in this area and there is scope to develop this further. Further additional powers would be needed if the CAA were required to compel airlines to allow the CAA to survey their passengers to judge performance during a disruption.

A significant number of the complaints made to airlines and escalated to Alternative Dispute Resolution (ADR) or the CAA's Passenger Advice & Complaints Team (PACT) concern flight delays and cancellations. For similar reasons to that mentioned under Accessibility, the CAA welcomes the expansion of our enforcement powers proposed in Aviation 2050 which will allow us to fine for breaches of Regulation [EC] 261/2004. Measures around disruption and compensation should also be considered a key area for the charter.

5.4.3 Standards for complaint handling

The CAA also sees the inclusion of standards for complaint handling as a priority. The complaints and redress landscape in aviation is currently fragmented, lacks a clear pathway to follow, and can result in consumers with the same or similar issues obtaining different outcomes.

Our UK Aviation Consumer Survey has highlighted consumer dissatisfaction with the complaint handling process. Separately, we know there are high uphold rates when complaints are escalated to PACT and ADR. This means that in a significant number of cases, PACT and ADR are deciding in favour of passengers when assessing their complaints. This could be indicative of poor complaints handling by airlines and airports.

The CAA believes that the charter could include commitments to performance standards for timeliness and accessibility and include expected levels of internal governance for accountability and feedback concerning complaint handling. However, we currently have no statutory role regarding industry complaints handling and additional information powers would be required to achieve and monitor such outcomes using the Passenger Charter.

We also welcome the review of ADR to ensure it is working in the best interests of the consumer. We consider that the existing voluntary ADR framework has worked well to achieve a level where approximately 75-80% of passengers have access to binding redress.

Q46. How should the proposals described be prioritised, based on their importance and urgency?

However, we do not believe that the objective of binding redress for all passengers will be achieved without mandation of ADR.

5.4.4 Standards for booking information and clear terms and conditions (including allocated seating)

We support the inclusion of standards for booking information (including allocated seating) and are keen to ensure that passengers can make informed choices regarding bookings that are based on transparent and fair terms and conditions. The CAA agrees that the charter could include booking information requirements such as the need for a Key Terms document and for minimum levels of transparency for terms and conditions.

Evidence suggests that price is the most important point of comparison for passengers when making a booking and that business models that require services such as seat allocation and hold baggage to be added during the booking process (or after) make price comparisons difficult. Whilst clear and accurate pricing is essential, this may be best delivered through open data solutions that respond to consumers' specific requirements. The CAA is shortly to publish a report of its recent investigation into airline terms and conditions ('Unfair Contract Terms in Aviation'), which we would request the government takes into account alongside this consultation response.

5.4.5 Expectations around the management of disruptive passengers

We fully support a zero-tolerance approach to disruptive behaviour from passengers caused by excessive consumption of alcohol and an ongoing focus on the implementation of the Industry Code of Practice on Disruptive Passengers.

The CAA has long advocated a cross-industry, collaborative and consistent approach to the is-sue of disruptive passengers and we will continue to work with industry on this issue to ensure the safety and comfort of all passengers.

We will continue to engage with international organisations and other national agencies to promote a wider consistency of approach internationally to disruptive behaviour from passengers, in particular where caused by excessive consumption of alcohol.

5.4.6 Service standards for consumers with allergies

The CAA supports the development of evidence-based guidelines to ensure that passengers who notify airlines of their food allergies can experience a consistent response from whichever airline they use. The CAA is engaging with representatives of airlines and organisations with an interest in allergy and supports the development of information for individuals with allergies and their families for publication on a web site to act as the single source of reference information.

5.4.7 Expectations and obligations on compensation and repatriation for when an airline becomes insolvent

Q46. How should the proposals described be prioritised, based on their importance and urgency?

We welcome the publication of the airline insolvency review and will work with government to implement its recommendations. In particular, the CAA would welcome any initiatives to avoid the situation, as observed when Monarch became insolvent in October 2017, where the treatment of an airline's slots can make it more valuable once insolvent than when it was operating.

For similar reasons to those mentioned under Accessibility, the CAA welcomes the expansion of our enforcement powers under the Air Travel Organiser's Licence (ATOL) regulations proposed in Aviation 2050 which will provide access to a broader range of civil sanctions.

5.4.8 Establishing open data standards to support innovation for consumers

The CAA supports initiatives to provide data that can be used in an innovative way to provide meaningful information for consumers.

5.4.9 Extending the role of Transport Focus to act as a representative body for air passengers

The CAA sees the value in a single independent voice for passengers, based on high quality research. Transport Focus could be well placed to provide this, particularly given that its scope could give helpful insights into the multi-modal aspects of a passenger's journey and ongoing commitment to improving passenger accessibility to transport. However, the largely competitive aviation sector is a very different market to Transport Focus' existing scope of road and rail, and the role of government in these sectors is different than in aviation. The CAA considers that the DfT and Transport Focus should concentrate initially on a strategy to introduce this new function to the sector on a contractual basis to build credibility before considering a wider statutory role, and in particular on issues relating to multi-modal transport.

Of all the topics covered and referred to above, the CAA is particularly supportive of the proposals to include commitments to best practice for complaints handling, accessing compensation rights and improved accessibility. The CAA would like to work closely with the government to ensure that the distinction between legal obligations and aspirational best practice with target levels of service or information for better passenger decision making is unambiguous, and that a commitment from industry to a voluntary code is not presented as equivalent to acceptable compliance standards against legal obligations.

Q47. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)

5.5 The CAA acknowledges that the government intends to work collaboratively to develop the charter and is happy to assist to promote appropriate consumer outcomes and to ensure that the final product is something that the CAA can help deliver. This is likely to require significant resource in addition to that required to monitor compliance with the charter, once it is established.

The aspiration to collate information to measure performance against the charter commitments may also have resource implications for businesses. The CAA agrees that such data should be available, not just for the regulator's use or for consumers to see but as evidence of effective internal governance. However, our experience suggests that the availability and quality of data on performance varies significantly across the industry. This will need to be taken into account when developing timelines for implementation.

Q49. What are the regulatory burdens that need to be managed and how might these be addressed?

5.6 The CAA acknowledges that measuring and reporting performance may pose a burden to industry but would like the government to carefully consider whether this is a burden created by the proposal or whether it is the cost of doing business. We would expect a well-run company to have effective governance and adopt such measures as a matter of course.

We would be concerned if the burden of compliance prevented businesses from implementing innovative approaches to the problems identified (for example, in the area of accessibility, where airports have designed systems to identify passengers in need of special assistance in a clear and dignified manner) and we will work with the government to ensure that the requirements are flexible enough to allow for innovation.

Also see the answer to question 12 (section 2.6 above), for a general statement on the CAA's attitude to any new powers or roles that the strategy proposes.

Q50. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?

5.7 The CAA considers that in an increasingly digital world, there will be future challenges around the use of data and how information is presented to passengers. For example, personalised pricing is the practice of sellers charging different prices to individual buyers based on what is observable about them. Its aim is to assess the price sensitivity of individual buyers in order to set prices accordingly. While personalised pricing predates the internet, online markets - in which prices can be automatically set and based on a consumers' data profile and browsing history - are ideally suited to the practice and enable it to be carried out

Q50. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?

with minimal effort on the part of the seller. The impact may be that passengers are charged higher prices depending on a number of parameters such as wealth, income, willingness or ability to shop around and compare prices, the amount paid for items historically and whether or not the passenger is able to walk away from the transaction. While the use of price discrimination can be beneficial, for example in increasing market participation and competition, it can also have the potential for some consumers to be charged more. This may have particularly negative effects for vulnerable consumers who may search less or have specific needs when booking a journey.

Personalised pricing is an area which is likely to have cross-sectoral relevance and could be a useful arena for collaboration between regulators and government, including at an anticipatory stage, as approaches begin to develop.

Q52. Are you aware of any relevant additional evidence that should be taken into account?

No

Chapter 6

Ensure a safe and secure way to travel

Q54. This section contains questions on chapter 6 of the consultation document - Ensure a safe and secure way to travel. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

General aviation safety

New business models

New technologies

Improving data and reporting

Responding to global variations in safety standards

UK driving global action on security

Cyber threat to aviation

Regulatory burden

Electronic conspicuity

Q56. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

6.1 GA safety (paragraphs 6.13 – 6.16)

Regarding General Aviation (GA), the CAA provides safety assurance to the public in accordance with its statutory duties. The CAA also follows the principles of better regulation which means that our interventions should be proportionate and targeted to achieve the desired safety benefit without imposing undue burdens on stakeholders.

As the consultation document notes, GA covers a wide range of activities from business jets to recreational flying. Our current GA policy framework is designed to ensure that we are able to continue to fulfil our statutory duties as we deregulate, delegate and introduce proportionate regulation as we committed to do in our response to the government's red tape challenge in 2014. Our process has been developed to ensure that we minimise the risks to those we are required to protect; that our regulation is consistent; and that we do not gold-plate European regulations.

Q56. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

We recognise that GA is an evolving industry where new issues will arise, some of which may require us to increase regulation in order to fulfil our statutory duties. We are focused primarily on protecting third parties from risks associated with GA activities, whilst enabling GA participants to manage their own risks. We would expect new forms of flight, such as drones or spaceflight to require adjustments in the way that we regulate and the way that airspace needs to be used to accommodate all users safely and efficiently. For this reason we strongly support the government's proposal to introduce electronic conspicuity for all users of UK airspace.

The CAA welcomes the review proposed by government on the approach to GA safety and considers that it will be complementary to the government's GA strategy, published in 2015. We particularly support the intention to use comparators such as regulatory systems internationally for GA and for other similar sectors as well as other sport and recreational activity. We feel this is more appropriate than comparison to the exceptional levels of safety achieved in Commercial Air Transport. The CAA looks forward to working with the review team and its independent chair, to ensure that the regulatory approach to GA safety is fit for purpose and proportionate.

6.2 New Business Models / New technologies (paragraphs 6.17 – 6.26)

Last year, we launched the CAA's Innovation Hub to help innovators bring their new aviation and travel products and services to market. The Innovation Hub is taking a forward-looking perspective, enabling innovators to test novel technologies and new business models across our remit. This will allow: innovators to understand better the existing regulatory frameworks; best practice lessons to be shared across the sector; and prepare the CAA to develop a better understanding of innovations and how existing regulations may need to evolve.

The hub will simplify the way innovators reach out to the CAA. It will provide education, awareness and information about the path to regulatory assessments and approval, and how engaging with the CAA can better inform the development of their innovation. In making this new approach available, the CAA will remain focussed on its role of protecting the consumer and the public.

The innovation hub offers three services: an innovation gateway (allowing innovators to access information about existing regulatory frameworks and seek guidance on how to engage with the CAA), a regulatory sandbox (where users can work with the CAA to test and trial innovative solutions in a safe environment), and a regulatory lab (to set out a roadmap and develop test cases in key areas of interest, bringing together everyone with an interest in the area such as other regulators, academia and the public).

The CAA welcomes the government's initiative to work internationally to facilitate flexible and effective oversight of new business models. We currently work in partnership with global and regional agencies on international policy issues, including the International Civil Aviation Organisation (ICAO), EASA and European Civil Aviation Conference (ECAC), the European Commission, European Parliament and government agencies in the UK with responsibility for international regulatory issues.

Q56. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

6.3 Improved data and reporting (paragraphs 6.33 – 6.40)

ICAO requires the UK to put in place a State Safety Programme (SSP) to regulate and oversee the UK aviation system. For the UK, this covers the United Kingdom of Great Britain and Northern Ireland, the UK's Overseas Territories and the Crown Dependencies.

The DfT is responsible for the SSP, working with the CAA and the UK aviation industry to maintain high standards of safety and security in UK aviation. The overall management of the SSP and the delivery of the UK aviation safety strategy is through the Safety Strategy Board (SSB). This is made up of senior representatives from the key aviation safety agencies. They are responsible for monitoring the safety performance of the UK aviation system and ensuring the SSP remains effective.

The CAA's safety role is to ensure that the aviation industry meets the highest safety standards and is managing its safety risks effectively. This is achieved through licensing of organisations and personnel, certification of aircraft and approval and oversight of organisations. Additionally, the CAA seeks to proactively identify and analyse risk through a performance based regulatory approach. This includes safety data gathering and analysis to identify emerging risks at the earliest opportunity. These identified risks are ultimately controlled by our industry, and therefore they play an important role in our SSP.

As a signatory to the ICAO Chicago Convention, the UK is required to comply with the convention. This requires the UK to follow the annexes or to file differences where there is a deviation. As a result, the UK is also subject to ICAO oversight. The UK SSP also considers the Global Aviation Safety Plan (GASP) and engages in the activities that support ongoing development of the annexes.

We support the government's continued ownership and development of the SSP.

The UK recognises the important role that safety culture plays in the effective management of safety at all levels. In this respect, the SSB supports a positive safety culture throughout the aviation industry via safety promotion activities and the application of a just culture. The CAA applies a Just Culture approach as part of its mandatory occurrence reporting system as well as during surveillance activities. This provides protection and confidentiality to anyone that reports a safety issue. The CAA prefers the term 'Just Culture' (in line with EU376/2014) to 'no blame' culture since the latter implies that individuals can commit a malicious act, report it and then not be blamed for the outcome.

We welcome the government's proposal to extend the principles of Just Culture in aviation on the ground as well as in the air.

6.4 Responding to global variations in safety standards (paragraphs 6.41 – 6.46)

The DfT and CAA work together to engage other countries in State Safety Partnerships. These partnerships focus on two areas:

- Improving the operational safety performance experienced by non-UK aircraft whilst in UK airspace and airports

Q56. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

- Improving the operational safety performance experienced by UK operators whilst overseas

Our primary focus is working with individual states and their aviation industries to improve operational safety performance. We foster strong and lasting relationships with aviation organisations internationally, to lay the foundations for long-term collaboration on safety performance and progression of aviation strategies. This work is currently underpinned by a DfT funded initiative focused on International Capacity Building. Through the programme, we provide the DfT and CAA with insight into current, emerging, future and evolving international risk issues and priorities.

We therefore welcome government's ambition to significantly scale up the State Safety Partnership programme. We will work with DfT and industry to establish the longer-term funding commitment that is necessary to facilitate development of mature and trusted partnerships with other states and deliver meaningful outcomes.

6.5 UK driving global action on security / cyber threats (paragraphs 6.47 – 6.64)

The CAA has been responsible for aviation security regulatory activity and compliance monitoring since 1 April 2014, when these functions transferred from the DfT. While the government leads on international aviation security matters and UK aviation security policy (including the setting of security standards), the CAA provides expert advice to DfT on these matters, as well as oversight of security requirements. The CAA welcomes the government's continued commitment to enhancing the effectiveness of aviation security, both in the UK and globally, and will work closely with it on implementing its security policies including the recent UK aviation security and aviation cyber security strategies.

6.6 Regulatory burden (paragraphs 6.65 – 6.68)

In conducting our regulatory roles, the CAA aims to allocate resources according to our understanding of the risks we manage within them, and to act in ways that are proportionate to the significance of those risks and that are reflective of organisational tolerance of residual risk. This means that we will continue to monitor the extent to which the burdens we impose are justified by the outcomes they achieve and will take action when they do not.

Where we are responsible for setting regulation, we will be determined to ensure that safety remains our number one priority and will step in to regulate where we can. Consistent with better regulation principles, we will also look for opportunities to improve our approaches and will consider deregulation or delegation of regulation to the aviation community where appropriate, only retaining regulation when justified and always doing so proportionately.

Where regulation is set at the international level, such as in Europe, or where risks to our stakeholders arise outside the UK, we will apply our resources where we can have a significant and beneficial effect. We will do this either through influencing rule-making and safety strategies at an international level, or by using our regulatory and commercial teams to partner bilaterally with other states on specific areas of mutual concern.

Q56. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

The CAA will work with the government to consider any evidence submitted by other respondents to Aviation 2050 in order to illustrate where there may be a disproportionate regulatory burden for aviation safety or security.

6.7 Electronic conspicuity (paragraphs 6.27 – 6.32)

Electronic Conspicuity (EC) is an umbrella term for a range of technologies that can help airspace users to be more aware of other aircraft in the same airspace. At the most basic level, aircraft equipped with an EC device effectively signal their presence to other airspace users, turning the 'see and avoid' concept into 'see, BE SEEN, and avoid.' Many EC devices also receive the signals from others, alerting pilots to the presence of other aircraft in the vicinity which may assist in decision-making for taking avoiding action where necessary. This makes EC one of the most important initiatives of the AMS because of its potential to increase safety benefits and save lives by reducing the likelihood of mid-air collisions and airspace infringements.

There are a number of EC solutions already in operation which are perfectly capable in a defined and specific environment; the challenge is to ensure ALL things see ALL things – i.e. the development of a fully interoperable solution. A comprehensive exploitation of technology includes the use of: airborne transponders; moving map displays; air traffic data displays; ground-based antennas; and satellite surveillance services. Much work has been done to develop these solutions so that there are lower power / lower cost devices available, and in reducing the reliance on primary or secondary surveillance radars. While many stakeholders have invested in EC solutions, this voluntary take-up has not led to fully interoperable solutions, nor the widespread adoption needed to realise the full safety benefits for traditional users and enable the integration of new users, such as drones.

The CAA therefore strongly welcomes the government's proposal to ensure mandatory identification of all aircraft in UK airspace in the future. In support of this, we have recently concluded a call for evidence (CAP1777 Electronic Conspicuity Solutions: A call for evidence on a new strategy) to develop our strategy in coordinating the full adoption of EC solutions in targeted blocks of airspace, where it can solve a clearly identifiable problem. It is expected that this will be a transitional step to the eventual full adoption of EC solutions across all areas of UK airspace. We will share the outcome of the call for evidence with the DfT and continue to work with them and industry to implement EC in the most efficient and effective manner.

Q60. What are the regulatory burdens that need to be managed and how might these be addressed?

6.8 See answer to question 12 (section 2.6 above).

Q61. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?

6.9 Faculty of Aviation and Space Medicine

The CAA proposes the creation of a Faculty of Aviation and Space Medicine to act as a professional membership body to set standards for, provide overall governance of and maintain the competence, through training and revalidation, of the aviation medicine community. Although it would ultimately be self-sustaining, it would need some seed funding, most likely for the first three to four years. We propose that the government provides support and funding for its establishment.

Aviation and Space Medicine is a rapidly growing medical specialty that supports the fitness of aircrew, other aviation workers and passengers for the aviation and space industries. It encompasses monitoring medical conditions which may affect flight safety or be affected by flight, and research into the physical, environmental, ergonomic, psychosocial and other hazards to health of flight. Practitioners often have a translational function between operational, engineering, physiological, medical and aerospace research.

A Faculty would ensure that consumers, workers, manufacturers, operators and regulators are supported by the best aeromedical advice and practice for their flight activities and consumers. It would support the emerging industry of human space tourism through the development of regulations for crew members and participants as recommended by the 'UK government review of commercial spaceplane certification and operations', July 2014. Education and training in this sector is key to safe delivery of aviation and space operations in the UK and will support the ambition to lead nationally and internationally in the aerospace sector.

A Faculty will take some of the onus off the CAA to provide training in Aviation and Space Medicine and could act as a focus for the training of pilots, for example supporting mental health initiatives such as the P-PAN project (Pilot – Peer Assistance Network, a national pilot support programme). It would reach beyond the specialty itself to General Practitioners and other doctors who need to understand the basic principles of aviation medicine to advise their patients and recognise when there may be a risk to flight safety from an unfit pilot, which was a core recommendation from the investigation into the 2015 Germanwings accident.

Q63. Are you aware of any relevant additional evidence that should be taken into account?

No

Chapter 7

Support general aviation

Q65. This section contains questions on chapter 7 of the consultation document - Support general aviation. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

Reducing regulatory burden

Airspace

Safety

Training and skills

Safeguarding

Refreshing the GA strategy

Q67. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

7.1 Reducing regulatory burden (paragraphs 7.9 – 7.14)

As the government acknowledges in Aviation 2050, the CAA's GA Unit was formed in 2014 in the wake of the Red Tape Challenge and is dedicated to effective regulation that supports and encourages a dynamic GA sector. The GA Unit covers most aspects of recreational aviation plus regulation of commercial balloon operations and oversight of airshows. It regulates non-complex aircraft including microlights, amateur built and historic aircraft, balloons, gliders, piston twins and singles up to 5,700kg maximum take-off weight and single pilot helicopters up to 3,175kg. It also oversees non-EASA aerodromes.

The CAA will support the government in continuing to influence EASA for simpler, lighter and better regulation for GA, and will continue to review new and existing regulation for GA to ensure it is appropriate and proportionate.

7.2 Airspace and Safety (paragraphs 7.27 – 7.38)

See comments above on airspace modernisation in sections 3.1 to 3.12 and on GA safety and electronic conspicuity in sections 6.1 and 6.7 above.

We welcome the government's proposal to introduce civil sanctions for Air Navigation Order (ANO) offences. As noted in Aviation 2050, the CAA's current enforcement options are very limited with little available to us short of revocation of licenses or permissions. Giving us a

Q67. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

more varied range of responses will help to make our regulation enforcement more responsive and proportionate.

The CAA welcomes the DfT's 2018 independent review (undertaken by Helios) of UK civil flying display and special event governance. The six recommendations made by the review have all been completed. Of those recommendations, two were observations requiring no CAA actions, one was a recommendation to the display industry and three were for the CAA to action. The three recommendations for the CAA – considering what additional feedback can be provided when assessing applications, enhancing stakeholder engagement in CAA investigations and undertaking a review of CAP 403 – were already in progress at the time of publishing of the report and all three have now been completed.

7.3 Training and Skills (paragraphs 7.42 – 7.46)

The CAA notes that the government has proposed to investigate the potential for reducing the costs of pilot training through greater use of technological alternatives, such as simulators and virtual reality, and is pleased to see that this is only to the extent that it would not compromise safety. The CAA's prime concern is the safety of the travelling public and third parties, and we will work with the government to investigate the potential to reduce the cost of pilot training whilst ensuring safety standards are not compromised.

7.4 Safeguarding (paragraphs 7.39 – 7.41)

The CAA welcomes that the government does not propose to mandate official safeguarding at all aerodromes, as we believe this is in line with the principle of regulating proportionately and only where necessary, which was one of the principles for regulation of GA developed from the response to the Red Tape Challenge. Official safeguarding comes at a cost to both the airport and the CAA and is therefore only justified when there are good reasons why it is appropriate.

7.5 Refreshing the GA strategy (paragraphs 7.53 – 7.55)

We welcome the government's commitment to the outstanding actions from the 2015 GA strategy which we believe to remain a relevant document for GA. However, we also recognise that GA, like all aviation sectors, continues to evolve in the face of new technology and other changes, and so we will also support government in ensuring that the elements of its strategy which concern GA remain relevant.

Q71. What are the regulatory burdens that need to be managed and how might these be addressed?

7.6 See answer to question 12 (section 2.6 above).

Q74. Are you aware of any relevant additional evidence that should be taken into account?

No

Chapter 8

Encourage innovation and new technology

Q76. This section contains questions on chapter 8 of the consultation document - Encourage innovation and new technology. Which of the following topic areas are of interest to you as an individual or to the organisation on behalf of which you are answering? (choose all relevant options)

Automation

Electrification

Agile regulation

Anticipating future developments

Q78. Do the proposals in this chapter sufficiently address the barriers to innovation?

8.1 Currently, the strong signal from industry is that it would appreciate a clearer vision from the government regarding the future of drone and Urban Air Mobility (UAM) and On-Demand Aerial Mobility (ODM) technologies in the UK. This would provide an anchor for future investment in these technologies in the UK.

Q79. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

8.2 Automation / electrification (paragraphs 8.5 – 8.16)

There could be explicit linkages made to other ongoing government initiatives, specifically the Future Flight initiative. Further, the proposals could provide an outline of the government's vision for a number of concepts related to Unmanned aircraft systems Traffic Management (UTM). These are:

- The normalisation of Beyond Visual Line of Sight (BVLOS) operations by drones; and
- The potential role of UAM and ODM in future.

8.3 Agile regulation (paragraphs 8.23 – 8.30)

The CAA strongly supports the government's endorsement of the steps we have taken towards our innovation strategy. Within the overarching framework of objectives set for the

Q79. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

CAA by Parliament, we regard innovation as being in the consumer interest and effective engagement with innovators requires a consistent, collaborative and flexible approach. The CAA's Board has established the following principles which will guide our engagement with innovators, although we recognise that, as the sector and the policy framework evolves, we will need to keep these principles under review.

Public protection and support to innovation

- At all times, our responsibility is to maintain appropriate levels of public and consumer safety, security and economic protection.
- Responsibility for the commercial success or otherwise of any individual product or service will remain with the innovator.
- Our role will be to facilitate innovation, including setting out how innovators should engage with the regulator.

Independence

- We will develop a clear offer to stakeholders and will treat all engagements in a similar manner. Our resources will be finite and therefore some limits or rationing of resources allocated to individual innovators will be required.

Transparency

- Our guidance/standards and engagement mechanisms will be clear and transparent.

Objectivity

- Our engagement with individual innovators will be structured and non-exclusive.

Appropriate charging model

- To facilitate innovation, we will not charge for initial discussions and support. However, in line with existing industry practice there will be charges when granting regulatory approvals.

In addition, recognising that the CAA has limited resources with which to engage with innovators, it will engage with innovators and innovations against the following principles:

Public and consumer interest

- Innovations will be prioritised, putting those that aim to deliver benefits to safety and consumers within the aviation sector first.

Safety

Q79. How could the policy proposals be improved to maximise their impact and effectiveness in addressing the issues that have been identified?

- Innovations need to comply with safety and consumer protection standards for the public. We recognise that government and society's risk appetite may change over time.

On 20 May 2019, the CAA announced the launch of its 'Innovation Sandbox'. The Sandbox offers innovative companies the chance to discuss, explore, trial and test emerging concepts, helping the UK's aviation sector to continue to be at the forefront of technology. The Sandbox was launched with six participants, details of which and their projects can be found on the CAA website. The CAA's innovation team will work closely with the participants to help them understand how they can meet regulatory requirements. Ultimately, this will be one of the elements these innovators will need in order to bring their new aviation and travel products and services to market.

8.4 Anticipating future developments (paragraphs 8.33 – 8.38)

In the longer term, UK aviation, in common with all other areas of the economy, will need to respond to increased levels of automation made possible by technologies such as artificial intelligence, deep learning, machine learning, neural nets etc. Essential to their deployment in the UK will be understanding what the cross-cutting issues are, what lessons, standards and good practice can be shared across sectors and ultimately what reliance within the safety context can be placed on these technologies. This will allow the accrual of benefits associated with them without the diminution of safety and consumer protection standards.

8.5 Space (paragraphs 8.36 – 8.37)

The CAA is working closely with government to develop the UK capability to support spaceflight operations and spaceports. In the short to medium term, this could involve both vertical and horizontal launch capability to enable both satellite launch operations and sub-orbital flights for tourism and scientific research. The CAA supports the government's longer term aspirations to develop point to point sub-orbital operations to transport passengers in the future.

There will be growing requirements for regulation and interoperability between aviation and spaceflight, at least to the extent that spaceflight operations will have to pass through the airspace used for aviation.

Future work needs to consider how space operations can be integrated with the airspace system through the use of technology and real time airspace management such that the requirement for segregated airspace can be minimised to avoid disruption.

Q80. How should the proposals described be prioritised, based on their importance and urgency?

8.6 Conspicuity should be prioritised as it is a fundamental prerequisite for some of the other proposals, particularly UTM.

Q81. What implementation issues need to be considered and how should these be approached? (e.g. resourcing challenges, high levels of complexity, process redesign, demanding timelines)

8.7 Significant changes to the ANO will be required to mandate these proposals, including electronic conspicuity. This will be a significant change from the status quo where general aviation and drone operators are able (in certain classes of airspace) to fly without any form of electronic tracking. There will be associated compliance, enforcement and implementation issues.

Q82. What are the financial burdens that need to be managed and how might those be addressed?

8.8 There will likely be a financial cost associated with the deployment of the necessary technology to deliver electronic conspicuity.

Whilst the CAA's approach to regulating innovating companies is currently being funded through a grant from the Regulators' Pioneer Fund, announced in October 2018, a revenue stream for the longer term will need to be established if it is to continue. The CAA will work with government to understand the options for future funding so that this work can be continued in a way that is fair to innovators and the industry.

Q83. What are the regulatory burdens that need to be managed and how might those be addressed?

8.9 See answer to question 12 (section 2.6 above).

Q84. Are there any options or policy approaches that have not been included in this chapter that should be considered for inclusion in the Aviation Strategy?

8.10 As indicated above, there is no discussion of either BVLOS (an existing area of focus for government through its pathfinders initiative) or of UAM/ODM which is an area receiving significant investment from industry.

Q85. Looking ahead to 2050, are there any other long term challenges which need to be addressed?

8.11 See the answer in section 8.4 above concerning 'Anticipating Future Developments'.

Q86. Are you aware of any relevant additional evidence that should be taken into account?

No

Technical annexes

Q88. Do you want to answer the questions on the technical annexes?

No

