

LADACAN responses to DfT Aviation 2050 consultation

Chapter 2: Build a global and connected Britain

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

The UK is positioned in the consultation as a global player and in some aspects a leader. Market forces and international competition are clearly recognised as influencers: if the UK is to retain its leadership position it will clearly be essential to press at international level for as level a playing field as possible in relation to the issues of safety, regulation and environmental responsibility to avoid being disadvantaged. We would suggest this aspect of policy is strengthened.

However, the UK is also a 'first generation implementer' of the infrastructure associated with mass aviation, much of which has been inherited or repurposed rather than being purpose-planned and sited accordingly (eg airfields from WWII which have massively expanded to become major airports). To be socially responsible, as well as to be focused on maintaining trade and exports, policy needs to recognise that real injustices may be done by permitting market forces alone to dictate where and when growth occurs, and if this is to be permitted then provision ought to be made for meaningful compensation (by this we mean monetary compensation for loss of value, rather than a budget for noise insulation).

Emissions are identified as a key issue, but there is no clarity on how policy will achieve meaningful reduction in aviation emissions. The UK's commitment to be carbon-neutral by 2050, whilst welcome, does not yet include aviation and this needs to be rectified. Without clear international legislation for aviation emissions reduction, no meaningful action will be taken.

The Aviation Strategy currently signals support for growth to meet demand and this approach does not take sufficient account of the climate emergency. Carbon offsetting as currently proposed in CORSIA does not achieve reduction at source, which is what is fundamentally required, and while the UK should set an example it should also use maximum pressure to influence others to follow suit.

Finally, in order to deliver more environmentally efficient airspace design, it is likely that substantial automation may be required: in this case again, international influence needs to be brought to bear to avoid blockage of progress towards carbon reduction through entrenchment in outdated working practices in certain European territories.

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

It is arguable that without a step-change towards low-emissions technology for commercial flights, emissions reduction and proposals which assist towards bringing climate change back under control are the top priority, since unless this is resolved everything else becomes academic. For policy to permit aviation to continue to lag other sectors in addressing emissions reduction, when less than 20% of flights are business-related (only 10% according to NATS Aviation Index) seems indefensible.

Strategy and policy appears to be lagging scientific and public perception of this key issue, and the many reasons cited to justify aviation growth could usefully be balanced by reasons to switch from kerosene-fuelled aviation to more environmentally sustainable forms of transport. Policy could and should be helping to shape attitudes towards the need for a more responsible approach to air travel. Is it balanced for an aviation policy strategy document to imply that holidays cannot be taken more locally, or by using rail instead of air, or to gloss over the air-tourism deficit of some £20bn in 2017?

We would welcome a policy approach based on a more balanced overall picture, not predicated on aviation growth being always good.

10. 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 clear that substantial emissions benefits could be achieved even with current levels of aviation traffic by implementing a redesign of airspace to eliminate gross inefficiencies due to holding stacks and inability to achieve continuous climb. It is inappropriate to continue to promote growth when the transport network system is clearly not fit for purpose. Implementation of a redesigned airspace should be given priority whilst maintaining current traffic levels through policy which gears any further expansion of traffic to the delivery of targets for reduction of the inefficiencies mentioned above. This would serve to focus minds and resource.

Similarly, it is clear that more fuel-efficient engines would reduce noise and emissions, but there is a huge backlog of orders and also a lack of sufficient churn in fleets which still utilise older noisier less efficient engines. Policy to address this and to incentivise scrappage of polluting engine technology and to stimulate more rapid adoption of cleaner quieter engines - again with no necessity for that to lead to growth - would, under the circumstances, be more responsible.

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

The financial burdens implied by restraining growth and requiring investment in cleaner technology could be addressed by taxation on the use of air transport. This would need to be addressed globally.

Chapter 3: Ensure aviation can grow sustainably

18. To what extent does the proposed partnership for sustainable growth balance realising the benefits of aviation with addressing environmental and community impacts?

The proposed partnership for 'sustainable' growth as proposed does not demonstrate an adequate balance between benefits and impacts, or between drivers for growth and constraints on the environmental costs to communities. The word 'sustainable' is used, but without clear environmental targets or objectives the use of a term which implies ecological responsibility is not justified - the whole tenor of the draft policy would indicate that 'sustained' is meant instead.

We have scored each of the seven partnership areas in the proposed partnership diagram by the number of definite pro-growth measures (+ve scores) versus the number of definite pro balance measures (-ve scores). Summing these scores at the end would deliver zero if the action proposals were in balance. However:

Future growth - three active proposals to facilitate growth (score +3)

Air quality - 'monitoring' but no targets, third provision does not seem to make sense (score 0)

Managing noise - another passive label, rather than 'Reducing noise' - 'guidance' is passive, noise caps are welcomed, ICCAN has no regulatory powers so not yet a definite influence for change (net score -1)

Modernising airspace - delivers growth and also cuts emissions, but with the caveat that the only tool in the toolbox is 'concentration' which can make the noise experience more intense; and 'concentrated dispersal' is only of any value if the dispersed routes are widely (>2km?) spaced (net score 0, but with an associated noise risk)

Efficiency - all active pro-growth measures (net score +3)

Community engagement - funds for 'community goods' may help to offset minor impact; noise insulation is only partially effective noise reduction, but there is no clear policy provision for compensation for loss of house value, loss of quality of life or blight (net score -1)

Tackling climate change - a welcome commitment on keeping departing flight emissions at or below 2005 levels in 2050, but a revision of 37.5Mt aviation carbon as now just being a 'target' with potential offsetting, and still way above the genuine 31Mt required for carbon-neutral, is not convincing (net score +1)

So overall, the rough-and ready scoring indicates a net score of 7 for definite pro-growth measures, versus just 2 for definite measures to bring growth into balance with environmental impact. The imbalance is 7:2 in favour of a pro-growth policy stance from the summary, which does not appear to deliver the balance required or claimed.

We strongly suggest that the policy objectives need to be readjusted to achieve a more obvious balance by introducing more definite and tangible controls which permit growth only if associated limits and reductions in environmental impact are achieved at the same time. This seems perfectly reasonable and in line with the APF, and would ensure that words are matched by deeds.

With current technology and procedural inefficiency, aviation growth without such balance is not environmentally sustainable (see evidence submitted for chapter 2). Therefore the partnership proposal is fundamentally weakened by its apparent rationale that policy should support growth rather than be used to control or damp growth which cannot cover the costs of its environmental impacts in the broadest sense: emissions, noise, house price devaluation, strain on surface transport, climate change.

There is no justification provided for why, given all the current circumstances including the climate emergency, the negative health impacts of noise and particulates which have societal costs, the significant balance of payments deficit in tourism of circa £20 billion, aviation should not bear the costs of its externalities.

Noise caps are welcome, but a policy whereby they would be set by airports to balance growth and mitigation, and could be circumvented by payment, is unlikely to deliver the desired outcome. For noise caps to be effective they must be set independently of the airport and enforced by independent regulation otherwise they are meaningless.

(Current example: Luton Airport, owned by Luton Borough Council which is also its local planning authority, has exceeded its night noise cap for two years running and is about to do so for a third, despite predicting in 2016 that it was going to do so, and with no enforcement action by the LPA, is simply applying for the cap to be increased - yet the breach was caused by over-rapid growth. All this despite the airport having noise planning conditions, a Noise Control Scheme, a Noise Management Plan and a Noise Action Plan all duly signed off by the various different 'authorities'. This proves the point that all these piles of paper are currently worthless because there is inadequate scrutiny, no meaningful accountability, and no enforcement.)

Policy needs to ensure that a balanced view is taken of all relevant causal factors if limits are breached, as well as ensuring adequate and sufficiently regular independent scrutiny of the delivery of noise control plans, and prompt enforcement action where performance does not match claims, and accountability to deliver on targets.

To achieve balance, there needs to be a clear and unambiguous policy statement requiring aviation noise (adequately defined) to be reduced, otherwise growth is again not constrained by a balancing requirement to deal with the growing annoyance caused by noise which is acknowledged but not addressed in effective terms.

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

Annual reviews initially to ensure that pro-growth measures are being balanced by equivalent impact-reduction measures would be appropriate, given the criticality of the climate crisis and the current levels of annoyance over noise near airports and under inefficient flight paths.

The question perhaps also misses the opportunity to review 'delivery of tangible outcomes': rather different from monitoring 'implementing the partnership'. Once policy defines clear outcomes, progress reviews can be held to assess progress towards delivery. The essential outcomes would need to include:

- a) noise reduction
- b) emissions reduction
- c) effective regulation to achieve (a) and (b)

since without these, the overall policy balance cannot be described as sustainable.

20. Are there any specific 'triggers' (e.g. new information; technology development etc) that should be taken into account when planning a review?

Two key long-awaited developments have already been mentioned:

- a) delivering an efficient airspace design
- b) delivering a substantial increase in more fuel-efficient engines

Other key trigger points would be:

- c) delivering a taxation or offsetting regime to cover the cost of externalities
- d) new technology to power flight with proven carbon and noise reduction

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

The Committee on Climate Change has advised the SoS (12 Feb 2019) that "Achieving aviation emissions at or below 2005 levels in 2050 ...will also require steps to limit growth in demand. In the absence of a true zero-carbon plane, demand cannot continue to grow unfettered over the long-term". Policy needs to be improved so that it shows how demand will be damped so as to limit growth to truly sustainable levels.

The fundamental principle that 'the polluter pays' needs to be applied to aviation as to any other sector, for which clear policy is required.

Community is underplayed in the proposals. Engagement does not confer any power to influence. Community funds do not restore quality of life or lift blight. Planning influence at local level is completely compromised if the planning authority owns the airport. ICCAN currently has no

regulatory powers, and until it does so a clear regulatory process to manage impact assessment and reduction will be required.

Policy needs to be clear so that, where necessary, it can be enforced. The phrase “to limit, and where possible, reduce total adverse effects on health and quality of life from aviation noise” is not sufficiently clear since it does not define 'limit' or 'noise' and does not make clear how 'where possible' is to be interpreted. The Environmental Noise Directive in the EU is clearer: “to avoid, prevent or reduce on a prioritised basis the harmful effects, including annoyance, due to exposure to environmental noise”.

The metric for annoyance should not just be based on an Leq value since it does not convey (for example) detail of the times at which disturbances occur, or the number of disturbances, or their individual loudness.

Policy could be improved by adopting the EU Noise Directive and ensuring that:

- a) prioritised plans are drawn up by airports above a given capacity to achieve noise reduction as rapidly as possible
- b) prioritised and expedited delivery of co-ordinated measures for airspace change occurs so as to assist in facilitating continuous climb and descent
- c) direct incentivisation is provided for quieter aircraft ahead of normal replacement schedules (or penalties for operating aircraft with noisier and more polluting engine designs)
- d) industry should meet all its external costs
- e) expert regulator should be empowered to assess and enforce the above measures
- f) until progress in all the above has been established, creation of additional runway capacity should be de-prioritised

There appears to be an unhelpful disconnect in policy and oversight terms between DEFRA (which assesses and signs off Noise Action Plans), DfT which sets noise policy, CAA which regulates and reviews airspace change, NATS which can route planes off prescribed routes, ICCAN which may act to influence noise regulation, and local planning authorities which set and presumably are supposed to enforce noise control conditions. There are just too many cracks down which polluters can slip. Will this new policy, for example, affect the assessment of Noise Action Plans by DEFRA? Policy would be improved by a more joined-up approach in which there are fewer players and hence less need to disperse expertise - perhaps DEFRA's role could be taken on by DfT? We would like to see a tighter and more effective regulatory framework in order to rebuild trust that when things aren't right, people won't just be batted from department to department as they currently are.

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

Overarching regulation and an effective regulator is required at the outset. Given the climate change imperative, reasonable proposals including public information to help damp demand should be prioritised so that promises to reduce noise and deliver cleaner and quieter operations (most particularly airspace redesign and re-engine aircraft) can actually be delivered and proven to produce results.

23. 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)

The implementation of more efficient airspace requires technical issues to be resolved. One of the most pressing and difficult is the issue of how to design 'tubes in space' for departures in particular, which can be flown by all aircraft in a given fleet (or a subset of a fleet, if low-performance and high-performance tubes are used), in all weather and loading conditions, without taking up such a significant amount of vertical space that other departure 'tubes' cannot cross them below 9000ft without manual intervention. This may require departures to be automatically synchronised between airports sharing airspace below 9000ft.

Neither NATS nor CAA appear to have foreseen this issue, and neither seems to be resourced to solve it. A call could be put out for new design approaches. See for example www.sensus-dp.demon.co.uk only to illustrate that there are maybe alternatives to consider.

However, it is clear from experience on the ground of various RNAV implementations, that track concentration, and even 'concentrated dispersal', is a technological development which facilitates what industry wants to achieve without necessarily always benefiting communities.

The significant backlog at the CAA means that Post Implementation reviews are being substantially delayed, which in turn is leading to further breakdown of trust between aviation and impacted communities, and is also not delivering the necessary learning.

Recent experiences at Edinburgh and Leeds Bradford have demonstrated that the more rigorous approach of CAP1616 which requires (perfectly reasonably) that airports should give communities more certainty about noise impacts, is revealing a lack of will or capability at airports to do this. This has implications for training or for assignment of more capable resource.

A follow-through from that would be to review the DfT Guidelines for Airport Consultative Committees. These bodies often involve very experienced and capable experts from local communities but who, because the ACC has no power to do anything except try to persuade, can too easily be ignored. Policy would usefully redress this balance by requiring rather than just encouraging meaningful engagement of airports with ACCs, and meaningful oversight of proposals and noise monitoring and modelling by local stakeholders.

Finally, and in conjunction with ICCAN, consideration should be given to the implementation of aircraft noise measurement, covering:

- a) applicable standards (eg ISO 20906) for noise data capture and analysis
- b) appropriate standards of design rigour and statistical analysis when the noise impact effects of proposed change or flight trials are measured and assessed
- c) independent scrutiny of the process for modelling (eg) noise contours so that there is a level playing field between airports and confidence in standards applied

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

There is currently no regulatory burden regarding enforcement of impact control simply because there appears to be no such enforcement. Regulatory oversight might not need to be as rigorous as safety-critical regulation is managed, for example, but could justifiably be approached in a similar way to health-critical regulation since the impacts of noise and particulates have both been proven to affect health.

26. 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?

There is a conflation of terms when 'compensation' and 'mitigation' are discussed. Similarly when community funds are proposed. Clarity is required in policy to establish:

- a) noise insulation is not compensation - it is a partially effective measure for noise reduction (only works when windows closed, cannot easily be installed in conservation areas, does not work when people are outside, if not fully funded may be beyond some people's means, is only currently available in the very worst-hit areas. Policy needs to improve the coverage and funding.
- b) compensation for reduction in house value needs to be linked to change which has occurred since the house was purchased, and to be open and transparent rather than a closed process
- c) the effect of aviation nuisance caused by intensification should not be protected in legislation against claim or litigation

It would be appropriate to consider whether the provisions of the Land Compensation Act part 1 are sufficient in a context where much of the current intensification of aviation noise burden is caused not necessarily by alterations to runways or development of new runways, but rather as a result of policy to maximise use of existing runways. To the affected communities, it is irrelevant whether say 40,000 additional flights per year over a six-year period (taking the case of Luton as an example) arose from works to taxiways or stands or parking or terminals, or simply arose from a concerted push to grow the business given existing infrastructure – the net result in noise terms is the same. However, the existing Land Compensation legislation appears only to apply to cases where there has been an alteration to a runway, which does not fairly cover all causes of intensification and is therefore unjust.

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

- 1) First and foremost the impact of aviation growth on climate change
- 2) Air quality measurements - in particular aircraft emission of particulates.
- 3) Health impacts of disturbed sleep or prolonged exposure to high noise levels.
- 4) The need for additional housing to be able to be planned in areas which will be free of noise, and hence a separation of noisy runways from centres of population.

Chapter 4: Support regional growth and connectivity

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

The policy proposal on APD is written very sympathetically indeed to industry, yet it is clear that APD and tax on fuel is an absolutely appropriate lever of control which can be used to limit growth to what is environmentally sustainable. Since sustainability is a key commitment throughout the consultation, this ought to be a perfectly natural follow-on: responsible policy should evidence and assess what is sustainable, and then influence the market accordingly. Or if that is seen as unwelcome in a free market, then adopt a free market influence and make the polluter pay. Either way, it appears that the approach currently being taken is to financially support through a favourable taxation regime an environmentally unsustainable industry which causes social harm to health and quality of life, and is a significant contributor to climate change.

Chapter 5: Enhance the passenger experience

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

The key issues are environmental sustainability, so the policy towards the overall passenger experience should include a provision to advise passengers of the impacts and costs of aviation, and to invite them to consider flying responsibly.

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

Improving the passenger experience on more sustainable forms of regional transport.

52. To what extent do these proposals sufficiently address existing and emerging safety and security risks in order to maintain the business and passenger confidence in the UK industry and as a destination?

The proposals inadequately address the growing concerns over the harm to public health caused by aviation.

58. 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?

Policy which addresses the latest concerns over harm to public health - see answer to question 61.

Chapter 6: Ensure a safe and secure way to travel

61. Please see <https://blogs.bmj.com/bmj/2019/06/18/the-harms-to-health-caused-by-aviation-noise-require-urgent-action/>

69. 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?

General Aviation based on chartering planes for (eg) soccer fans may seek to achieve lowest cost rather than most environmentally friendly. Policy needs to ensure that older, noisier and more polluting aircraft are phased out.

Equally, policy need to encourage airports to take a robust stance on occasional charters which do not stay on track due to unfamiliarity with SIDs, especially at night.

Chapter 7: Support general aviation

73. To what extent are the government's proposals for supporting innovation in the aviation sector the right approach for capturing the potential benefits for the industry and consumers?

Proposals for airspace modernisation are welcomed provided that they operate primarily to reduce emissions and noise and to reduce noise over communities. See also our comments in answer to question 23, noting the reservations about concentration of tracks and the current challenges caused by uncertainty in vertical profiles.