



The Air Transport Sector – Transition to a Post Covid-19 World

Planning for and delivering a recovery for the Air Transport Sector will require previously unforeseen levels of change in policy, regulation and operations to ensure a safe, sustainable and efficient air transport system. Guidance will be required on issues that apply across the entire sector, including for Governments, Regulators, Airlines, Airports, ANSP's, Aircraft Manufacturers and Air Transport Forecasters. In addition to a set of viable, internationally coordinated and agreed health protocols, it is expected that societies will demand measures that support:

- A balanced return to economic sustainability and a level playing field for regions as well as major economic hubs
- The retention of some of the environmental benefits that have become evident through reduced aviation activity during the pandemic
- Legacy regulation and practice adapted to incentivise the environmental benefits outlined above and deliver improvements to air transport safety, efficiency and costs.

Fundamentally and Irrevocably Changed

1. The impact of the Covid-19 global pandemic on aviation is profound. Whilst the declines in air passenger traffic are plain to see, the specific impacts on individual airlines, airports and Air Navigation Service Providers - the airspace operators, present a highly complex interdependent picture, which for any analyst, government or other interested party, are difficult to fully determine accurately at the present time. In 2019, Air Transport activity in the UK directly supported about 1.5m jobs of which a very significant number are now jeopardised. When it comes to recovery, the location, duration and extent will be beset by enormous challenges where most of the solutions are currently either unknown or unknowable.
2. While the essential role of the air transport industry, which is perhaps *the* key activity driving an increasingly interdependent globalised economy is well understood, this function is now compromised. This vital role was ably demonstrated by the consequences of the closure of large areas of airspace as a result of the Icelandic Eyjafjallajökull volcano eruption in 2010. The Covid-19 pandemic is many times more significant. Public confidence in air travel has been eroded as never before, the restoration of traveller confidence is a key requirement for the industry to recover. This pandemic has already resulted in airline and airport bankruptcies and more are expected.
3. The response to previous external shocks can to some extent signpost the steps that the Industry is likely to take to prepare for when the market recovers and, also to secure a financially viable future. It is already clear that the future size and shape of the Industry will be markedly different from that of 2019. Airlines, Airports and Air Navigation Service Providers will use the event to resize work forces, adjust long standing capacity plans, increase the use of technology, data and efficiency improvement strategies. Those which succeed will have a stronger "Investment story" to go to the market with to raise new equity. These re-sizing actions will be undertaken whilst delivering improvements to environmental performance as the reduced demand more closely matches the available capacity including airport and ATC infrastructure.



4. We agree with others that that the recovery in airline traffic will be led by the domestic segment, followed by short haul international travel and later, and more slowly, intercontinental services; Whilst a necessary condition will be the removal of restrictions including those around country closures and quarantine requirements, the other key component will be the restoration of passengers' confidence to travel. However, while new national health security protocols may be sufficient to restart domestic travel, a separate framework will be needed for international air travel where the EASA protocols are a starting point.
5. Aviation and all of the dependent businesses, including the tourism industry will emerge greatly weakened and reduced in size. In the absence of agreed multilateral standards the international market will lag domestic recovery markedly. The prospect if not the likelihood of greater protectionism, will at the very least interrupt the trend to further liberalisation with the resulting constraint on airline network-planning freedom, creating a further impediment to restoring the global air transport system to what it was pre-COVID-19. A number of factors will combine to increase the importance of direct flights with a consequent reduction in the importance of transfer traffic. The crisis has enabled airlines to revisit and understand the routes on which they make a sufficient return and this will result in smaller but more profitable networks.
6. Against a background of what appears to be a structural reduction in capacity of some 30%, based on our analysis of statements made in respect of future aircraft fleets, we would suggest that perhaps some 30% of the jobs in air transport are now at risk and maybe lost across the aviation chain. The job losses will disproportionately impact areas where air transport is the primary source of employment, in the UK for instance particularly including around Gatwick, Luton, Stansted and Manchester Airports with significant economic and societal effects.
7. The precipitous fall in activity has also resulted in a material reduction in the environmental impacts of aviation. We estimate that for the UK, the reduction that we have seen in the number of departing flights has reduced daily emissions attributed to aviation by some 80,000 tonnes of CO₂. Against this background, the question "how much travel do you really need in the future?" has already been asked. However, for those impacted by, or particularly at risk from the virus and for those including airport and airline staff, facing an uncertain future and economic hardship, these are extraordinary and difficult times and the near-term environmental outcomes will not be their first priorities.
8. Identifying and achieving a balance of these conflicting imperatives will be difficult for the Industry, Regulators and Policy makers to achieve.

Interdependence

9. The COVID-19 pandemic has highlighted the inter-connectedness and interdependence of air transport. It is clear that significant structural re-alignment and re-sizing of civil aviation is required in order for the sector to assure its financial sustainability. Aviation is an activity with far reaching effects on society, and requires a system wide response and solutions. Policy makers, Regulators, Airports, Airlines and other industry participants will need to facilitate a coordinated recovery of this strategic economic asset for society.
10. Policy responses will drive the outcomes of the recovery strategies and will impact the evolution of the entire air transport eco-system. The interdependent roles of Airlines, Airports and ANSP's will need to be harnessed and incentivised by Policy and Regulation to collaboratively deliver improved system efficiency, capacity, environmental performance and safety.



11. Governments, as Policy makers and Regulators will need to provide and implement a new and supportive regulatory environment to assist Air Transport management teams to re-establish Civil Aviation in its pivotal role as the enabler of global economic development and its value as a national strategic economic asset.

Next Steps

12. In our view, to ensure that when traffic returns it will be better accommodated, while at the same time alleviating inefficiencies, traffic delays and environmental penalties, all features of recent business as usual performance, while supporting and focussing on the level playing field objectives of Government, we believe the following key areas require focus.
13. The highly intensive use of critical resources including runways, airspace, and aircraft, which has led to increased airspace and on-the-ground congestion, and has contributed to significant flight disruption, degraded environmental performance, cost inefficiencies and passenger rights compensation claims for delays, must be addressed.
14. A review of regulation is needed. Historically, commercial air traffic has been growing at a greater rate than airport capacity, leading many larger airports to become increasingly congested resulting in significant system inefficiency and a whole series of costly externalities.
15. This will need to take into account that for airports, whether privately or publicly owned, the primary asset and value driver is usually its runway(s). In general terms, the more aircraft movements it can process on its runways, the greater the revenue it is able to achieve. Similarly, an airline's primary asset and value driver is its aircraft fleet – airframe utilization and load factors have a direct bearing on the revenue an airline can achieve.
16. There are real opportunities for systemic improvements to be achieved through more focussed collaboration between national stakeholders – Airlines, Airports and the airspace managers. While aviation and technical policies have an inherently international nature, the scope for benefit from national initiatives is in our view, promising in the near to medium term.
17. Remember to learn the lessons of responses to the impact to civil aviation of past crisis events, which for instance, when compared to airlines and many airports, has had a much longer-term effect for airspace managers. It took more than ten years for the number of flights operating in US airspace, to recover the levels seen prior to 9/11. Similarly, across Europe, the annual number of flights seen in 2007, before the global financial crisis, did not recover until 2017, also a full decade later. We estimate that by 2030 Europe (including the UK) could still be handling similar airspace traffic levels to those of 2007.
18. When developing solutions, governments should press for appropriate resilience in airport capacity declarations, such as proposed by the 'Voluntary Industry Resilience Group'. As a result, delays would be structurally reduced and the environmental performance for subject airports should be significantly improved. Furthermore, the EU 261 delay compensation risk would also be reduced. This approach will also focus attention on better use of airspace and airports elsewhere in the UK.

Conclusions

19. At the beginning of 2020, the effect of the pandemic on the aviation industry could scarcely have been imagined. We echo the calls for the swift and efficient rebuilding of the industry. The decisions taken cannot be at any cost, society will need to trust that the rebuilding is done in a sustainable way, taking into account the interdependence of the activity and balancing the positive and negative characteristics of aviation, whether economic or environmental.



20. The need for collaboration has never been greater. Industry stakeholders including ANSP's, airlines and airports should collaboratively develop recovery plans for cost reductions and capital investments to ensure that clear objectives and cost benefits can be understood, agreed and pursued across the industry. Government has a clear role in the early development of the new regulatory approach needed to shape the recovery strategies.
21. Increasingly significant environmental imperatives provide a good example of an area in need of improved collaboration. Individual stakeholders are already doing a good job of reducing their own environmental impact, there is no doubt that more can be achieved collectively. In our view a better balance of real capacity, reflecting a sensible margin for system resilience, with overall demand is needed. This will require compromise. Whether by airports wishing to make the maximum use of scarce runway resource, airlines scheduling unachievable turnaround times to maximise aircraft utilisation, or ANSP's accepting an ever-increasing demand on an airspace system that is (was) already over-stretched.
22. In order to rebuild the industry, it's leaders, whether airline, airport or ANSP, will need to know where to focus their efforts, and why. The guidance and support of government and independent thought leaders, with expertise in Airline, Airport, Air Traffic Management, Regulatory, Policy and Economics, will help to provide a sound basis for informed planning, decision making and delivery.
23. At Five Aero, we have concluded that planning for and delivering a viable and sustainable air transport system serving the post Covid-19 world will require enormous levels of change in policy, regulation and operations to ensure a safe, sustainable and efficient air transport system. Guidance will be required on issues that apply across the entire sector, including Governments, Regulators, Airlines, Airports, ANSP's, OEM's such as forecasting, commercial and operational impact assessments, environmental policies, competition and pricing analyses.

Five Aero are ready to assist you on the journey ahead.

Five Aero
Thought Leadership for Air Transport
Policy, Regulation, Economics, Environment, Operations



Five Aero:

- **Ben Alexander – Finance & Economics** Ben has 25 years' experience of financial services and risk management as a private equity partner and director at London investment bank. He has been a board director of businesses ranging from start-up to £200m revenue and led corporate acquisitions and institutional fund-raising. Ben is a commercial adviser to HM Government's Cabinet Office and holds a private pilot's licence.
- **Rowland Hayler – Airport Operations** Rowland is a highly experienced process transformation consultant and programme manager with proven change leadership and analytical skills developed over thirty years. His aviation career includes leadership on several large-scale transformational programmes at Gatwick & Edinburgh airports. Most recently he developed Gatwick's Single Runway Optimization plans to achieve 60 ATM's on its single Main Runway and devised the highly innovative Dual Runway Operational Concept.
- **Graham Lake – Air Traffic Management** Graham is the former Director General of CANSO, the ANSP Trade body, following a career in Air Traffic Control and Aviation management. Graham has participated in many international policy groups and thought leadership committees. He is co-author of independent studies of airspace and operations at London's Gatwick airport in 2016, Toronto Pearson in 2017, both intended to lead to improvement of environmental performance. In late 2019, he co-authored for a major airport shareholder an independent review of the airspace capacity serving London and the European en-route airspace capacity.
- **Peter Lynam – Airline Management** Peter is the former head of worldwide operations for British Airways. He consults for many airlines, airports and suppliers around the world as an acknowledged expert in the 'on-the-day' running of large airlines operations and has sat on many cross industry and EU/UK committees.
- **Nick McFarlane – Policy & Regulation** Nick is a co-founder and former Managing Director of aviation consultancy Helios which has a worldwide reputation for excellence and integrity. He has a long consultancy career in aviation with a focus on air traffic management and airports. He has worked extensively for government and non-government institutions such as the EC, Eurocontrol, and aviation regulators, as well as major airports, air navigation service providers, investors and industry. He is also a co-founder of a company that helps regulators manage drone approvals.
- **Chris Tarry – Specialist Advisor on Airline Business** Chris is an Economist who spent almost 20 years as a leading sell side analyst in the City of London where he was the top ranked Aerospace analyst. In 2002 he established CTAIRA as a specialised aviation advisory and consulting business with an exceptionally strong research basis. CTAIRA operates at the highest levels within companies providing services related to financial performance, strategy, investment decisions and investor perspectives