

GATWICK AIRPORT NORTHERN RUNWAY: POORLY TIMED EXPANSION PLANS

Safe Landing is a group of professionals within the aviation industry: pilots, cabin crew, airline, airport staff, air traffic controllers, aerospace engineers and factory workers.

THE RISK TO WORKERS

We're worried about the economic risk to workers' livelihoods if our industry leaders plan for a massive growth in flights, which is incredibly unlikely to materialise - and then continue - as climate impacts accelerate.

First and foremost, we care about protecting the jobs and skills of the future. We want an industry that is sustainable in the long-term, not one propped-up on false assumptions that will fail us again - as with Covid - and lead to a fresh round of redundancies, later this decade.

We believe that there is a high risk of Gatwick Airport spending the rest of the decade building excess air traffic capacity at the airport, which will prove to be unusable next decade as we are unable to stay within our carbon budget. This will lead to a bad return on investment for the expansion, and predictable associated loss of jobs.

CONCERNS OVER AIR TRAFFIC GROWTH

We're concerned about the trajectory of our sector. In particular, the growth of air travel, and what this means for greenhouse gas emissions, global warming and climate change. We see the current projected growth as unrealistic, given the necessity for future regulations to limit air traffic growth in order to reduce aviation emissions.

This opinion has been formed from many years of detailed examination of all technology, fuel and policy options proposed by our industry. To be clear: there is **no aircraft technology or alternative jet fuel** that will be available at scale, in time to reduce aviation emissions at the necessary rate.

Our opinion is also consistent with the guidance of the UK's Climate Change Committee (CCC) who identified a change of course on airport expansion as a "**priority recommendation**" in their '2023 Progress Report to Parliament'. They recommend that: "**No airport expansions should proceed until a UK-wide capacity management framework is in place to annually assess and, if required, control sector GHG emissions and non-CO2 effects.**" They also advised that: "**there should be no net airport expansion unless the carbon-intensity of aviation is outperforming the Government's emissions reduction pathway and can accommodate the additional demand.**" [1]

The reasons for this are clear, as the UK Government is off track to meet its future, legally binding carbon budgets. Of particular note, is the sixth Carbon Budget (which limits the volume of greenhouse gases emitted over a 5-year period from 2033 to 2037), which for the first time, will incorporate the UK's share of **international aviation** and shipping emissions [2]. This will mean that the Secretary of State is legally bound to enforce measures, such as caps on air traffic, which will ensure that the UK doesn't exceed the budget.

Even without the application of legally-binding carbon budgets resulting in enforced limits on air traffic, it's likely that demand projections for air traffic growth are flawed. This is due to economic reasons and the high likelihood of the price of air fares rising substantially as a result of any decarbonisation scenario. This is due to the fundamentally high cost of alternative jet fuels (such as advanced biofuels or electro-fuels) or burning kerosene and running negative emissions technologies to re-capture the carbon. For example, the cost of carbon removal is estimated in the multiple hundreds of pounds, e.g. \$600 per tonne of CO₂ [3], compared to the current (often voluntary) cost to airlines of offsetting emissions under the CORSIA scheme which is estimated to only cost between 70 cents and \$12 up to 2035 [4].

A recent paper [5] examines the economic issues, highlighting the massive costs for decarbonising aviation, highlighting that to “*stay within 1.5 °C warming, the sector has to reassess capacity and its relationship with profitability*”. It concludes that “*limiting growth is of relevance regarding the availability and scalability of alternative fuels, as well as the overall transition challenge in terms of fuel requirements, it is argued that a carbon tax reflecting on the cost of emissions needs to be introduced. The overall effect is that the transition to net zero becomes more credible and achievable, though it comes at the cost of curbing growth rates.*”

CONCERNS OVER ‘BUSINESS-AS-USUAL’ AIRPORT EXPANSION

We're particularly concerned by the expansion plans of many airports around the UK. These assume business-as-usual air traffic growth across the 2020s & 2030s, in a similar fashion to the rapid growth that occurred across the 2010s. However, we're in a position where the climate science and climate action required is incredibly clear: we need year-by-year degrowth in emissions across **all sectors** of the economy. This necessitates that we fundamentally transform how we travel, and how we fly.

Our group includes many specialists who have worked on the cutting-edge technology that will emerge over the next few decades, and it's very clear to us that technology and fuels alone won't deliver a 1.5°C-consistent emissions reduction pathway. We fully anticipate future policies and regulations that will mean we fly less far, less fast and less frequently.

THE FUTURE OF AIR TRAVEL

This transformation is likely to result in a reduced number of longer-range flights, made in large conventional jet airliners, as this expansion at Gatwick is planned to accommodate. It is also likely to result in a greater number of shorter-range flights made in smaller, unconventional aircraft, e.g. “zero emissions” electric- or hydrogen-powered aircraft.

However, these aircraft concepts are still in very early stages of design and development, and there are many significant design challenges which are likely to place severe restrictions on the capabilities of future aircraft. The airport infrastructure being proposed at Gatwick, and elsewhere, is wholly inconsistent with a significant uptake of such aircraft.

For instance, all credible “zero emissions” electric- or hydrogen-powered aircraft being developed today are regional propeller-driven aircraft with far lower passenger capacities

e.g. 50 passengers, rather than the 150-200 passenger capacity aircraft which tend to currently fly from Gatwick, and which the terminal and gate layout of this latest airport expansion is configured to accommodate.

For example, Airbus has stated recently that its hydrogen-powered aircraft under development “will start small and avoid competing with its other aircraft models” [3]. ZeroAvia’s product, the ZA2000, which they hope to certify and launch within the next decade is a 40-80 seat regional turboprop [4]. Universal Hydrogen’s initial product is a 40 passenger De Havilland Dash 8 turboprop [5].

SUSTAINABLE, FUTURE-PROOF, INVESTMENT DECISIONS

We therefore warn Gatwick about the risk of stranded-assets for public and private finance if the wrong infrastructure is built, and would encourage all stakeholders to consider the benefits of putting expansion plans on hold until the future of air travel is better understood.

This is not only in the best interests of the planet, but also of aviation workers who rely on sustainable investment decisions being made, to ensure a future of long-term, sustainable employment.

We are concerned that if Gatwick Airport goes ahead with its Northern Runway proposals, it will waste significant financial resources and time. It should instead hold off on expansion planning until there is more certainty regarding the future of aviation, and in the meantime direct efforts towards future-proofing the airport and associated jobs, for the necessary transformation of air travel.

REFERENCES

[1] [REDACTED]

[2]

<https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035>

[3]

[REDACTED]