

## Objection to planning application 18/P/5118/OUT

The Campaign against Climate Change urges North Somerset Council to reject the planning application for the proposed airport expansion on the grounds of unacceptable climate change impact. The environmental statement (Chapter 17) describes the carbon emissions from the project as 'not significant'. However, this is misleading.

The proposals state that Bristol Airport's operational carbon emissions would reach **1,568ktCO<sub>2</sub>/year** in 2026. This is **significantly greater than the 1,211ktCO<sub>2</sub> from all other transport, homes, and industry** in North Somerset local authority in 2016.<sup>i</sup>

It should be noted that some figures have been widely circulated that slightly underestimate the increase in CO<sub>2</sub> from the planned development. The figures submitted in the environmental statement actually predict a **73% increase** in aviation emissions and a **66% increase** in the overall operational emissions of the airport compared to 2017. This is explained in more detail below.

The policy context with relation to climate change is also set out.

### Increased emissions from expansion at Bristol Airport

The figures submitted in support of the planning application give the emissions for the 'project' as being those additional to the increase to 10 million passengers for year, which is taken as a given and used as the 'future baseline' for comparison.

**If compared against 2017 figures instead, the proposed increase is more striking: to 1568ktCO<sub>2</sub>/yr overall emissions, which is a 66% increase on current levels. Aviation emissions represent 1290kt of this, a 73% increase on current levels.**

**Table 1 – figures for emissions drawn from tables 17.3 and 17.9 of the environmental impact statement.**

	<b>2017 (8mppa)</b>	<b>2026 (10mppa) 'future baseline'</b>	<b>2026 (12mppa)</b>	<b>increase from 8- 10mppa</b>	<b>increase from 10- 12mppa</b>
<b>Non-aviation emissions</b>	<b>198.31</b>	<b>230.14</b>	<b>277.85</b>	<b>31.83</b>	<b>47.71</b>
Cruise domestic	44.25	42.8	46.53	-1.45	3.73
LTO domestic	18.83	16.39	17.53	-2.44	1.14
<b>Domestic flights</b>	<b>63.08</b>	<b>59.19</b>	<b>64.06</b>	<b>-3.89</b>	<b>4.87</b>
Cruise international	586.36	988.9	1075.01	402.54	86.11
LTO cycle international	97.33	135.79	151.38	38.46	15.59
<b>International flights</b>	<b>683.69</b>	<b>1124.69</b>	<b>1226.39</b>	<b>441</b>	<b>101.7</b>
<b>Total aviation</b>	<b>746.77</b>	<b>1183.88</b>	<b>1290.45</b>	<b>437.11</b>	<b>106.57</b>
<b>Total emissions</b>	<b>945.08</b>	<b>1414.01</b>	<b>1568.31</b>	<b>468.93</b>	<b>154.3</b>
Aircraft movements	76,199	86,973	97,393	10,774	10,420

It is noticeable that the airport claim that while going from 8 to 10 million passengers a year would involve a significant increase in emissions from international flights of 441ktCO<sub>2</sub>/year (and an overall emissions increase of 469kt), the increase from 10 million to 12 million would involve only an additional 102kt from international flights and therefore an overall emissions increase of just 154ktCO<sub>2</sub>/year.

**We would recommend that North Somerset Council look more carefully why this assumption has been made.** If it is not justifiable, then there are two alternative scenarios which are immediately obvious:

1. The extra carbon emissions from international flights are similar when going from 8-10mppa as when increasing from 10-12mppa. The first, higher figure, 441ktCO<sub>2</sub> is reasonably accurate. That would increase the estimate for total emissions in 2026 to 1908ktCO<sub>2</sub>/year, almost exactly double the current level (see table 2 at the end of this document).

2. . The extra carbon emissions from international flights are similar when going from 8-10mppa as when increasing from 10-12mppa. The increase in carbon emissions for the 'future baseline' from international flights (going from 8-10mppa) has been overestimated and that from the increase from 10-12mppa ('the project') has been underestimated. If the two were averaged out, the figure for total emissions in 2026 could stay the same, at 1568kt/yr, but the additional emissions resulting from the increase from 10 to 12mppa would not be 154ktCO<sub>2</sub>/yr but 324ktCO<sub>2</sub>/yr (see table 3 at the end of this document).

There is one more factor that should be taken into account in all consideration of aviation's climate impact.

Flying not only emits CO<sub>2</sub>, but by emitting other gases and particles at altitude and forming contrails, there is an additional contribution to global warming that may be even more significant than the CO<sub>2</sub> emitted.<sup>ii</sup> Because these 'non-CO<sub>2</sub> effects' are variable and hard to calculate exactly, they are almost always ignored in planning and policy decisions, meaning that the climate impact of aviation is significantly underestimated. However, the government's own guidelines for company reporting of CO<sub>2</sub> emissions suggests, as an approximation, multiplying aviation emissions by 1.9.

Bristol Airport's own figures break down aviation emissions into 'cruise' and 'landing and take off'. If the former were multiplied by 1.9, that would take the airport's current total annual emissions up to the equivalent of 1,500ktCO<sub>2</sub>, and at 12 million passengers the equivalent of 2,500ktCO<sub>2</sub> - more than double the total CO<sub>2</sub> from all other transport, homes, and industry in North Somerset.

There is a very large margin of error in calculating these non-CO<sub>2</sub> effects so we are not suggesting these figures should not be taken as accurate. But it should be noted that the assumption that the 'non-CO<sub>2</sub> effects' can be ignored and treated as zero is an even less credible basis for policy-making. The existence of this additional climate impact makes policies which allow aviation to grow while seeking to cut emissions elsewhere even more dangerous.

### **National context: UK climate action at risk from uncontrolled aviation emissions**

The Environmental Statement for this planning application states in chapter 17, "*There is uncertainty regarding UK GHG policy in the aviation sector.*" This is entirely correct. National government has continued to dodge the question of how rising emissions from continued aviation expansion can be compatible with urgent action to tackle climate change. The most basic analysis makes it clear that the two cannot be reconciled. In this situation, it would be logical for local government to work on the basis of facts, rather than government indecision.

The UK is on course to miss its legally binding climate change targets in the coming decades. Of particular relevance is the failure to curb aviation emissions.

While all other sectors are expected to reduce their emissions under the Climate Change Act to cut our emissions by 80% by 2050, international aviation and shipping were not included in this. The Committee on Climate Change took the view that these emissions should not be ignored altogether as they posed as great a risk as any other (and might in future be included). They have calculated the UK's overall carbon budgets to leave headroom for aviation emissions, and recommended these should be capped to no more than 37.5MtCO<sub>2</sub> by 2050, a very generous allowance compared to other sectors.

The government appears to have effectively abandoned the 37.5Mt cap, giving the go ahead to expansion at Heathrow, which would make it impossible. The third runway at Heathrow is currently subject to legal challenge. Whether it is built or not, expanding regional airports is also a threat to our climate targets.

The latest science, as set out in the recent IPCC report on keeping emissions within 1.5C and our commitments under the Paris climate deal, mean that we need to reduce emissions even more radically than legislated for in the Climate Change Act. The likelihood of devastating global consequences from exceeding 1.5C warming have recently led Bristol council and others around the country to set targets to go 'net zero' by 2030.

Excluding the aviation industry from this would make meaningful carbon reduction in line with the Paris agreement impossible, and is clearly unfair to other sectors of the economy.

The impacts of climate change are being felt right now in many places around the world: food shortages, increased poverty and increased severity of heatwaves, drought, hurricanes and wildfires. In the UK, we will be affected both indirectly (through stresses on global food production and increased conflict) and directly through impacts on our own agriculture, weather extremes, etc. Somerset, in particular Weston-super-Mare,

has been identified as one of the most vulnerable locations for increased coastal flooding due to sea level rise.<sup>iii</sup>

The government claim that aviation emissions will be dealt with by the aviation industry's new carbon offsetting scheme, CORSIA. This does not hold up to scrutiny, since this scheme in particular has very weak regulations to ensure carbon offsets are genuine (sustainability criteria for biofuels have been dropped, for example, and some fossil fuels have been declared to count as 'green'). The Committee on Climate Change, the UK's independent experts on reducing our emissions, have stated that offsetting cannot be a long term solution to aviation emissions and that we should be pursuing genuine emissions reductions by managing aviation demand.

*Tables below relate to 'scenarios' with alternative emissions, explained above.*

**Table 2 (figures which differ from original figures in Table 1 above highlighted)**

	<b>2017 (8mppa)</b>	<b>2026 (10mppa) 'future baseline'</b>	<b>2026 (12mppa)</b>	<b>increase from 8- 10mppa</b>	<b>increase from 10- 12mppa</b>
Non-aviation emissions	198.31	230.14	277.85	31.83	47.71
Domestic flights	63.08	59.19	64.06	-3.89	4.87
International flights	683.69	1124.69	1565.69	441	441
<b>Total aviation</b>	<b>746.77</b>	<b>1183.88</b>	<b>1629.75</b>	<b>437.11</b>	<b>445.87</b>
<b>Total emissions</b>	<b>945.08</b>	<b>1414.01</b>	<b>1907.6</b>	<b>468.93</b>	<b>493.58</b>

**Table 3 (figures which differ from original figures in Table 1 above highlighted)**

	<b>2017 (8mppa)</b>	<b>2026 (10mppa) 'future baseline'</b>	<b>2026 (12mppa)</b>	<b>increase from 8- 10mppa</b>	<b>increase from 10- 12mppa</b>
Non-aviation emissions	198.31	230.14	277.85	31.83	47.71
Domestic flights	63.08	59.19	64.06	-3.89	4.87
International flights	683.69	955.04	1226.39	271.35	271.35
<b>Total aviation</b>	<b>746.77</b>	<b>1014.23</b>	<b>1290.45</b>	<b>267.46</b>	<b>276.22</b>
<b>Total emissions</b>	<b>945.08</b>	<b>1244.37</b>	<b>1568.31</b>	<b>299.29</b>	<b>323.93</b>

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<sup>i</sup> <http://naei.beis.gov.uk/laco2app/>

<sup>ii</sup> <https://www.carbonbrief.org/explainer-challenge-tackling-aviations-non-co2-emissions>

<sup>iii</sup> <https://www.theccc.org.uk/wp-content/uploads/2015/10/CCRA-Future-Flooding-Main-Report-Final-06Oct2015.pdf>