



**10 Minutes for the Planet**  
**Flying through a dirty sky** ©  
*by Sarah Heath*

Hello! I'm Sarah Heath and you're listening to 10 Minutes for the Planet on English Waves.

Travelling by air has become more and more accessible to those wanting to tour the globe, as greater competition between airlines has meant that the cost of a ticket can be as little as the price of a bottle of cheap wine. The Air Transport Action Group reports that in 2017, 4.1 billion passengers took an aeroplane to their destination of choice.

Some other mind-boggling statistics show that 1,303 airlines operate a fleet of 31,717 aircraft. Flights travel to 3,759 airports worldwide through a route network of several million kilometres which are overseen by 170 air navigation service providers.

It is little wonder therefore, that a key player in this industry, Ryanair, has just been declared Europe's tenth biggest polluter. The other nine in this ignoble list are all coal-burning power plants, mostly in Germany. With one observer asserting that "Ryanair is the new coal", this low-cost airline emitted 9.9 megatons of CO<sub>2</sub> in 2018 according to the European Commission. Research conducted by a group in Brussels, Transport & Environment, calculated that Ryanair's emissions had increased by 6.9% which matches predictions that, by 2020, the aviation industry's contribution to world CO<sub>2</sub> emissions will hit 1 gigaton per year. Overall, air travel causes 12% of total transport emissions compared to 74% by road travel.

And the numbers, as well as the aeroplanes, only seem to be going one way: upwards. Aviation is a growing industry and generates billions of euros per year: at current standings, somewhere equivalent to Switzerland's GDP. If the airline industry were a country, it would rank 20th in the world in terms of GDP and is heading for the €1 trillion mark within the next 20 years.

People's need to travel by aeroplane is adding to already rising levels of greenhouse gases. CO<sub>2</sub> emissions from aviation have risen by 66% since 2005 and at the current pace, it will become the highest emitter in under thirty years. It is already Europe's number one failure in terms of prevention of climate change and a drastic rethink is vital to curb increasing pollution.

Changes are being brought about gradually, although the speed with which new technologies are being developed is not enough to offset emissions in line with established targets set by the Carbon Offsetting and Reduction Scheme for International

Aviation. Their standards cover 75% of flights but are way off tackling the huge threat placed on the environment.

The Air Transport Action Group have set themselves three main goals: to improve fuel efficiency by 1.5% year-on-year until 2020; from that point on, carbon emissions will be capped through carbon-neutral growth which should ultimately result in emissions becoming half of what they were in 2005. Some critics have repeatedly demanded why airlines do not pay taxes on fuel nor VAT on airline tickets they sell.

Other measures being actioned include the addition of 'winglets' on the end of aircraft wings which reduces drag and therefore saves fuel. Since the year 2000, it has been calculated that these post-production additions to aeroplanes have reduced CO<sub>2</sub> emissions by 80 million tonnes. More technical engine alterations now mean that some aircraft have the same fuel efficiency as cars: the new Airbus A380 uses less than three litres of fuel per 100 passenger kilometres.

The International Renewable Energy Agency is looking into the alternatives to jet fuel in the form of biofuels. Studies are already underway on substitutes which include waste gas, energy cane from sugar cane, lumber waste and responsibly-grown palm oil. Boeing and Etihad Airways have teamed up to grow [\*Salicornia bigelovii\*](#), a plant which grows in water and produces an abundance of oil seeds that can be used to make biofuel.

A reduction in global air travel is highly unlikely particularly when companies such as Ryanair currently advertise seats as cheaply as €4.64 for a one-way trip from Southend-on-Sea in the UK to Bilbao in Spain. After news of its ill-famed addition to the top ten worst polluters in Europe, a Ryanair spokesman said that the company is, "Europe's greenest and cleanest airline." And that, "Passengers travelling on Ryanair have the lowest CO<sub>2</sub> emissions per kilometre travelled than any other airline."

The bottom line in such industries will always be the major incentive and as fuel costs in the airline business have risen to 33% of total operating costs, and will certainly continue to rise, maybe the lure of an extra few dollars added to profit margins will make these massive companies move away from jet fuel to more ecological alternatives.

Tune in next week for more stories on the environment, here on English Waves.