



## 10 Minutes For The Planet

### Flying through a dirty sky©

by Sarah Heath and Catherine Balter-Kendall

Stressed syllables are underlined and in **bold**.\*

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.

**globe** (n.) world

**mind-boggling** (compound adj.)  
extremely surprising, confusingly large

**fleet** (n.) large group of planes operating as a unit

**network** (n.) an interconnected system

**to oversee** (vb.) to manage

**it is little wonder** (exp.) it is not surprising

**key player** (exp.) important company in an area of activity

**power plant** (n.n.) factory producing electricity

**to match** (vb.) to be equal to, to be the same as

**GDP** (Gross Domestic Product)  
the value of goods and services

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

**to rank** (vb.) to be given a position

**greenhouse gases** (exp.) gases that contribute to global warming

**pace** (n.) speed, rhythm

**failure** (n.) non-success

**drastic** (adj.) radical, extreme

**to curb** (vb.) to keep under control

**to bring about** (phrasal vb.) to cause sth. to happen

**to offset** (vb.) to compensate for the opposite effects of sth.

**to set a target** (exp.) to fix an objective, to establish a goal

**to be way off** (exp.) to be very far from

**to tackle** (vb.) to deal with

**huge** (adj.) enormous, very large

**threat** (n.) a danger to sth.

**from that point on** (exp.) from that moment

**to cap** (vb.) to put a limit on sth.

**VAT** (abbr.) Value Added Tax

**drag** (n.) force which inhibits forward movement

**underway** (adv.) in progress

**lumber** (n.) wood cut from trees for commercial use

**to team up** (phrasal vb.) to join with others to do sth. together

**ill-famed** (adj.) famous for a bad action

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.

**the bottom line** (exp.) the most important factor

**incentive** (n.) sth. that motivates or encourages

**lure** (n.) sth. that attracts or tempts

**to move away from** (phrasal vb.) to change from

**\*Tip!**

Words ending in "-tion" always have their main stress on the penultimate syllable:  
**competition, destination, navigation, prediction, contribution, pollution, addition  
production, alteration, reduction**

Note the stress in the word "**developed**" (second syllable like **produces, abundance,  
continue**