

Climate Change: The Black Elephant in the Airline Cabin

20 August 2020



Dr Michael Galvin, Consultant, Australian Institute of Business.

Even before Covid-19, few business people would have been unaware of what has become known as “black swan” events: an event or occurrence that deviates markedly from what is normally expected or planned for and is extremely difficult to anticipate and adapt to. After Covid-19, a variation on this metaphor has also entered the lexicon: “black elephant” events. A variation on the phrase, “the elephant in the room”, black elephant events arrive with all the unanticipated disruption and impact of a black swan event, but the contributing elements of which have been hiding in plain sight long before the major disruption occurs.

This article focusses on how one known feature of climate change, hiding in plain sight – increasing wind speeds – will impact on air travel, based on what is already established about how the environment is changing.

In an op-ed published in the [New York Times](#) in May this year, the prominent globalist Thomas Friedman took issue with the term “climate change”:

“I don’t like the term climate change to describe what’s coming. I much prefer ‘global weirding,’ because the weather getting weird is what is actually happening. The frequency, intensity and cost of extreme weather events all increase. The wets get wetter, the hots get hotter, the dry periods get drier, the snows get heavier, the hurricanes get stronger.”

From bushfires in Australia to the thawing of the permafrost in Siberia to an increasing hurricane season in the Gulf of Mexico, even a cursory knowledge of noteworthy weather events in recent months and years would demonstrate the truthfulness of Friedman’s basic point: the weather is getting more extreme in lots of different ways.

It would seem logical to conclude that winds will also increase, and this has already been shown to be happening too.

A [Scientific American](#) article published in November 2019 was titled: “The World’s Winds Are Speeding Up”. The article was reporting on a recently released study which showed, among other things, that in the last decade, the global average wind speed has increased from about 7 mph (11.3 kph) to about 7.4 mph (11.9 kph).

While there are some positive aspects to increasing wind speeds – such as better efficiency of wind farms in generating electricity – the purpose of this article is to speculate what an increasingly windy planet might mean for a major feature of modern life: air transportation.

If the world is on a path to getting windier and windier, what might this mean for the experience of flying, particularly flying long distances? In the author's opinion, it could mean a great deal.

And it is not as if turbulence is not already a big deal for the world's airlines. It is.

According to a February 2019 article in National Geographic, fear of turbulence is already a major disincentive for some people, who choose not to fly rather than have to deal with the possibility of spilling their inflight coffee, at best, or being seriously injured in less frequent cases. Dealing with turbulence is already a big cost issue for airlines. According to National Geographic, flight path and altitude changes to avoid turbulence is estimated to cost US airlines as much as US\$100 million a year, and burn an additional 160 million gallons of fuel.

Anyone hoping that the issue of flight turbulence is going to go away is not facing reality, on a planet that is getting more windy, not less. One expert quoted in the [National Geographic](#) estimates that by 2050 to 2080, changes to the jet stream from climate change will result in an increase of clear-air turbulence of 113% over North America, and as much as 181% over the North Atlantic.

So what? One might be tempted to say.

There would be few frequent flyers who have not experienced unpleasant periods onboard planes during moments of turbulence. Sick bags are not provided to every passenger for no reason. Some airports have a reputation for just how unpleasant landing or taking off can be. Wellington, New Zealand is probably the most well-known example in the Asia-Pacific. But already there would be many other airports and routes around the world where the chances of becoming airsick are not negligible.

The primary question being asked in this article is this: How much worse should this now occasional problem get before it becomes a major issue, or even an existential crisis, for the airline industry?

In this context, it is worth considering an old axiom of Hegelian dialectical thought: the relationship between quantitative changes and qualitative ones. The idea goes something like this:

When enough quantitative changes occur to an object or thing, the quality of the object/thing also changes. A simple example is water. A pot of water might be 20 degrees C. Assume it is heated or cooled one degree at a time (a quantitative change). For a considerable period of time, it stays water. But at a certain point, it will become either ice or steam – its very quality will have changed, from a liquid into a solid or a gas respectively.

So, if all quantitative changes eventually become qualitative ones, what does this mean for the effects of increased wind speeds on air travel? To put this question another way, the evidence already exists that flying is going to become more turbulent (more wind = more turbulence). So how much windier does it have to get before it impacts on passengers' decisions to travel by air?

A flight from Sydney to London lasts about 24 hours. Turbulence is not a major feature of that experience, most of the time. But how much would be enough to change current behaviour?

50% of the flight? 80%? This is speculation, of course, but the general point is obvious. Climate change is going to [affect air travel](#) by increasing the likelihood of turbulence, and turbulence is already an issue for airlines and some passengers. The only question is by how much? When will such a quantitative change become a qualitative one?

If COVID 19 has taught us anything, it is the law of unanticipated consequences. And so it is with climate change. The airline industry will most certainly have new challenges to overcome. The scenario described in this article might sound far-fetched. But is it any more unexpected than the fact that a substantial proportion of the Singapore Airlines fleet is spending much of 2020 mothballed in an airport in Central Australia?



Michael Galvin

Editorial Consultant, AIB Review

Dr Michael Galvin, formerly an Associate Professor of Communication at the University of South Australia, is the author of three books (including a recent memoir about living with disability, and a best-selling Business Communication textbook), several book chapters about Communication, and many media articles and conference papers. He has over 15 years of university management experience.