

RESPONSE TO THE PRODUCTIVITY COMMISSION'S FEBRUARY 2019 DRAFT REPORT ON ECONOMIC REGULATION OF AIRPORTS

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About the Author

I am a longstanding member of the Sydney Airport Community Forum (SACF) and have sat on the Forum in different representative roles since its inception in 1996. This submission however, is made by me as an individual with significant community experience of aircraft noise rather than specifically as a SACF representative. As I also provided input for the SACF submission to the Productivity Commission there is some overlap with that submission.

Introduction

In its February 2019 draft report on Economic Regulation of Airports the Productivity Commission has made statements and reached conclusions in favour of changes to the cap and curfew at Sydney Airport. These regurgitate the views of Sydney Airport and industry bodies which seek to benefit from relaxation of any regulations, yet give little regard and show scant understanding of the problems of aircraft noise pollution on the residents of Sydney that these regulations are intended to address. If implemented changes to the movement cap and curfew would further tip the balance of regulation in favour of Sydney Airport and the industry to the detriment of the noise effected residents of Sydney.

This submission will address some of the specific comments and claims in the Productivity Commission's draft report as they relate to the cap and curfew, and the impact of Sydney Airport's operations on the community.

Background

Only equalled by Copenhagen, at 8km from the CBD Sydney Airport is one of the closest major airports to its city centre anywhere in the world. (Senate Select Committee on Aircraft Noise in Sydney Report *Falling on Deaf Ears*, November 1995, p28). It is also one of the smallest in terms of land area. To the north, east and west Sydney Airport is surrounded by dormitory suburbs. Even to the south, whilst there is some distance created by Botany Bay, planes either fly at low altitude directly over or closely to the suburb of Kurnell. This proximity not only creates problems for residents surrounding the airport. Aircraft arriving and departing Sydney Airport fly over many tens of kilometres of suburban Sydney moderately and seriously effecting hundreds of thousands of Sydney residents with aircraft noise pollution. For someone living between the parallel runways at Sydney Airport the 80 movement an hour cap means a noisy aircraft every 90 seconds. However, because the noise builds as the plane approaches and fades as it moves away, in practice this is almost constant noise.

Over the last 60 years major airports in many first world countries have moved to the outskirts of the city and the land has been re-purposed to a higher and better use for operational, economic, environmental and social reasons. However, in Sydney this has been resisted by those with a financial interest in the Airport's retention at Mascot and it has been allowed to expand incrementally under both public, and more recently private ownership. The cost of this expansion has been borne mostly without compensation by the people effected by aircraft noise pollution.

The opening of the Third Runway in November 1994 and the significant changes to airspace management that occurred as a consequence resulted in existing and new areas being effected by concentrated and relentless aircraft noise pollution. There was huge public outcry with mass protests and blockades of the Airport, and a major public enquiry - the 1995 Senate Select Committee on Aircraft Noise in Sydney and the *Falling on Deaf Ears* Report. The political response to this was:

- The Long Term Operating Plan (LTOP) to share the noise,
- The *Sydney Airport Demand Management Act 1997* to put a definite limit on the number of aircraft that could cause aircraft noise (in any one hour), and
- The *Sydney Airport Curfew Act 1995* to protect the ability of people to sleep free from aircraft noise.

These regulations are a necessary consequence of having an airport so close to the centre of the city, surrounded by suburbs and where planes are required to fly for many kilometres over suburban Sydney at great cost to the health and amenity of residents.

Is the Current System Unnecessarily Restrictive?

The Commission states that the current system at Sydney Airport is unnecessarily restrictive and generates costs to airlines, passengers and freight customers, and suggests that it is important that it is reformed (p237). That the Commission considers that the objective of managing the effect of aircraft noise on local residents should be balanced with reforms would indicate that it is of the view that the current balance of the Regulations are neither correct nor working. There is no evidence of this, and it is strongly disputed.

The fact is the Sydney Airport Demand Management Act was enacted to put a limitation on the number of aircraft movements at Sydney Airport in order to, at least partially, address the problems created by aircraft noise pollution from Sydney Airport's operations. As a significant factor in annoyance from aircraft are the number of noise events, the specific purpose of the Regulations is to limit aircraft movements in any one hour. This is very clear from a reading of the Act itself and the speeches that accompanied it's submission to Parliament. As the Sydney Airport Demand Management Act 1997 itself states: "*This Act provides for the limitation of aircraft movements at Sydney Airport (otherwise than during curfew periods).*" It very specifically and intentionally draws a line in the sand on the airport's growth, albeit at an excessive level.

The recent history of Sydney Airport is one of incremental expansion, with the Airport and its proponents arguing that each new proposal is only a small change over what exists and is necessary for its efficiency and profitability. Invariably these changes are at the expense of the aircraft noise impacted community. Proposals to spread the measurement of the cap

averaged over a longer period or to have the cap applied only to scheduled not actual movements (p235) are simply the latest attempts to incrementally increase the number of aircraft permitted to use the Airport during periods of peak demand.

Similarly the proposal (p235) to create extra slots for regional airlines in addition to the 80 movements per hour cap will not only increase the overall number of movements dramatically but lead to existing regional slots being reallocated to larger but more profitable international and inter-city domestic jet flights. It is ridiculous to suggest that *“this is limiting the effect on noise outcomes”*. There will be more aircraft overall causing a greater disturbance. Because there are more aircraft it will lead to even greater use of the higher capacity parallel runways further limiting the operational flexibility to achieve noise outcomes through noise sharing prescribed by the Long Term Operating Plan (see below).

Economic arguments to change the cap to allow more aircraft to take off and land based on “efficiency” ignore the economic, social and health costs of aircraft noise pollution on the impacted community. Aircraft noise pollution is treated as a ‘free-good’ to be consumed at will as far as Sydney Airport and the aviation industry are concerned. Currently it is only through effective regulation that the community is given some protection. It is therefore not surprising that Sydney Airport and the aviation industry are calling for changes to the cap and curfew regulations to increase their revenues at no cost to themselves but rather at the additional cost to the amenity, health and property values of the noise impacted community.

Rather than increase the burden on the noise effected community, if the Airport is experiencing problems with scheduled aircraft being delayed or arriving early, then the prudent solution is to provide for greater contingency by allocating less slots so that there is a larger buffer to the 80 movement limit to absorb any variance. (The measurement of the cap’s ‘Regulated Hour’ by rolling 15 minute increments can and has led to the 80 movements being exceeded over a clock hour.)

That some airlines cannot get slots at the exact time when they want them, that region airlines continue to get prime access, and that a few aircraft are being delayed so that they do not breach the cap or curfew at Sydney Airport is indicative that the current regulations are working as intended. The regulations are clearly intended to put a limitation on the number, type and time of aircraft movements at Sydney Airport **and do not need “reform”**. The existing regulations were put into place to strike a balance between the competing demands of the aviation industry and the community’s health and amenity following the opening of the Third Runway, and within this context they are working as intended.

I would also note that it is ‘a bit rich’ for Sydney Airport, the airlines and tourism bodies that for years argued against building a second airport for Sydney, to now suggest that the longstanding cap and curfew regulations should be abolished or heavily modified because they are impacting their ability to take off and land as many planes as they want, when they want at Sydney Airport.

If there is to be any criticism of the current regulations it is that balance is tipped too much in favour of Sydney Airport. The unintended consequence of the existing cap of 80 movements per hour is that it results in the burden of aircraft noise pollution unfairly falling on residents to the north and south of the airport. The Long Term Operating Plan for Sydney Airport is intended to fairly share aircraft noise, and in addition to the north/south parallel runways (Modes 9 & 10) has a number of modes of operation that use a

combination of runways to allow for the fair sharing of aircraft noise pollution. These modes are illustrated in the appendix. LTOP includes targets for sharing aircraft movements over the north (17%), south (55%), east (15%) and west (13%). However, while parallel operations can sustain 80 movements per hour the 'noise sharing modes' as they are known cannot, and are limited to about 65 movements per hour at most. The result is that in recent years with increased traffic parallel operations are used excessively and the noise sharing objectives of the LTOP are not being met. (See Mode Use 2018 at the appendix)

There is indeed a strong case that a lower cap should be specified outside of peak periods to enable more effective aircraft noise sharing and noise objectives to be achieved. While the Airport and industry would argue that current and future demand exceeds the capacity of the noise sharing modes, lowering the cap would encourage a shift to larger planes to meet the demand within the constraints of a lower cap during non-peak periods. It would also be a mechanism to encourage the move of traffic to Western Sydney Airport (WSA) in due course. Such an approach would provide for the most equitable sharing of the problem of aircraft noise pollution across the community of Sydney and the most reasonable balance between protecting the community and the needs of the Airport and aviation industry.

Are There Unintended Noise Consequences of the Cap and Curfew?

The Commission states that the movement cap and curfew compound delays, prevent airport and airline assets from being used efficiently and result in unintended noise and adverse environmental effects (p207). It later references the Sydney Airport submission for these comments (p234). Frankly this is a furphy with regards to adverse environmental impacts. Modern flight management systems can be used to very accurately time the arrival of aircraft. However occasionally aircraft do arrive before the end of the curfew or the availability of their slot and are forced to hold. These aircraft are held well away from suburban Sydney either over the ocean or rural areas and at a height well over 10,000 feet where there is no noise impact. The following holding locations were provided by Airservices Australia to SACF:

Holding Points East of Sydney

Over water

Holding Points North of Sydney

BOREE 45nm (83 Km) from Sydney

SADLO 70nm (130 Km) from Sydney

MEHAN >120nm SYD (>222 Km) from Sydney

Holding Points South/West of Sydney

TARAL 75nm (139 Km) from Sydney

CULIN/MAKKA 100nm (185 Km) from Sydney

To suggest that there are unintended noise consequences is disingenuous.

Are There Options That Could Meet Current Noise Objectives at Lower Cost?

The Commission states that the existing movement cap and curfew are not targeted at noise outcomes directly and is seeking further evidence on options that could meet current noise objectives at lower cost. There is an inherent assumption in this approach that the current level of aircraft noise generated by the operations at Sydney Airport is in some way acceptable and that current noise objectives are already being met. This is clearly not the case.

Firstly, the existing movement cap and curfew are actually targeted at noise outcomes directly. They are about limiting the number of noise events that create noise pollution and disturbance on the community. To suggest otherwise is incorrect.

Secondly, the noise objectives for Sydney Airport are those outlined in the Long Term Operating Plan, and are to minimise the exposure to aircraft noise by putting flights over water or non-residential land, and where this is not possible to share the noise. The unmitigated expansion of operations at Sydney Airport along with a lack of incentive and will to achieve the noise sharing of LTOP mean that the noise objectives for Sydney are not being met. There is today and there has been for a long time an unacceptable level of aircraft noise generated by the operations at Sydney Airport.

Before discussing the proposals to change the current cap and curfew regulations it is important to address the quiet aeroplane furore. There is no such thing as a quiet aeroplane. While some aircraft are quieter than others they are not quiet and the growth in airline traffic has meant that there are many, many more of them. However it is chosen to be dressed up, every additional aircraft results in more noise and annoyance to the community, adversely impacting their health and amenity. All of the proposals from the Airport or the industry are aimed at increasing the number of aircraft that can operate at the Airport, not reducing the overall noise impact.

Similarly, the comments from Airservices Australia reflected on p 212 (box 7.1) that the euphemistically called 'Smart Tracking' navigational technology is a development to reduce aircraft noise is just 'spin' and ignores the significant negative noise impacts that this technology has when used to control planes over populated areas. It is stated that the technology "*allows aircraft to follow existing noise corridors and avoid noise sensitive areas*". The problem is that there is no way at Sydney Airport of avoiding flying over many tens of kilometres of suburban Sydney. The correct name for this technology and its associated procedures is 'Precision Based Navigation' (PBN). This technology, which places planes extremely accurately, results in aircraft flying within a wingspan over the same houses every single time. The Commission needs to be aware that when the Third Runway opened it was accompanied by legislation that required aircraft to fly in very narrow flight corridors north of the airport. This was known as the 'Bennelong Funnel' and caused phenomenal disturbance to the hapless people who found themselves now living under these corridors. Following the recommendations of the Senate Select Committee on Aircraft Noise in Sydney repeal of these corridors was one of the first actions taken to address the problems created by the opening of the Third Runway. The LTOP subsequently sought to further spread aircraft by designing multiple flight paths and operating changes that aimed to spread aircraft within a flight path. While the 'Smart Tracking' technology can be a useful tool when only used to control aircraft into narrow corridors over water or non-residential land to avoid flying over people, the very real

concern is that it will actually result in the defacto reintroduction of the narrow and destructive flight corridors over the suburbs north of the airport to the further detriment of the aircraft noise effected community.

The Commission quotes BARA's suggestion that an option could be to more directly target noise to ensure it does not exceed numbers of events above a specified threshold and then discusses the 70dBA as that threshold stating that it is a level that does not lead to hearing loss. That may be the case, however 70dBA is a level of noise that creates significant disturbance and has other adverse health effects that cannot be ignored.

70dBA is often chosen as the outdoor noise measure on the basis that there is a 10 dB(A) reduction in noise experienced indoors. However, this is based on European and North American standards where houses are well insulated against the cold and doors and windows are mostly kept closed. In Sydney the weather requires that doors and windows are mostly open when a house is occupied, so in practice the indoor noise disturbance is rarely materially lower than that outdoors.

A German study that reviewed the literature on epidemiological studies regarding the illnesses, annoyance, and learning disorders resulting from aircraft noise concluded that *"outdoor aircraft noise-induced equivalent noise levels of 60 dB(A) in the daytime and 45 dB(A) at night are associated with an increased incidence of hypertension.. "and that "exposure to 50 dB(A) in the daytime (outside) is associated with relevant learning difficulties in schoolchildren."* The authors recommended maximum values of 55 dB(A) for the day and 45 dB(A) for the night in order to protect the more sensitive segments of the population such as children, the elderly, and the chronically ill. [Kaltenbach, Maschke & Klinker 'Health Consequences of Aircraft Noise', Deutsches Ärzteblatt International, published online 2008 Aug 4].

Other alternatives suggested such as adopting the Heathrow approach of a noise budget for curfew noise are also problematic. While not suggesting that how noisy an aircraft is isn't important, but if a person is woken up by an aircraft with a 5 Quota Count number or a 16 Quota Count number used at Heathrow, the outcome is the same - they are woken up. It is far better and simpler to restrict those planes that can operate during the curfew to those that create the least noise and that if any have to operate at all then to put a strict limit on their numbers so that people can get some sleep.

I would however support the more frequent review of the types of aircraft permitted to operate during the curfew so long as there is clear evidence that any proposed new types of aircraft are quieter, that there is no increase in the number of aircraft operating during the curfew. These decisions must include consultation with SACF and the Implementation and Monitoring Committee (IMC) for Sydney Airport.

Discussions around "the cost" to the Airport and Industry of addressing noise objectives ignore the costs of aircraft noise pollution on the health, amenity, property values and productivity of the noise impacted community. Until these 'externalities' are properly costed and compensated for then discussion about the costs to the industry of current noise objectives lack validity. These "costs" to the Airport and Industry are simply the costs of doing business at an Airport so close to the centre of the city where planes fly over many tens of kilometres of populated suburbs.

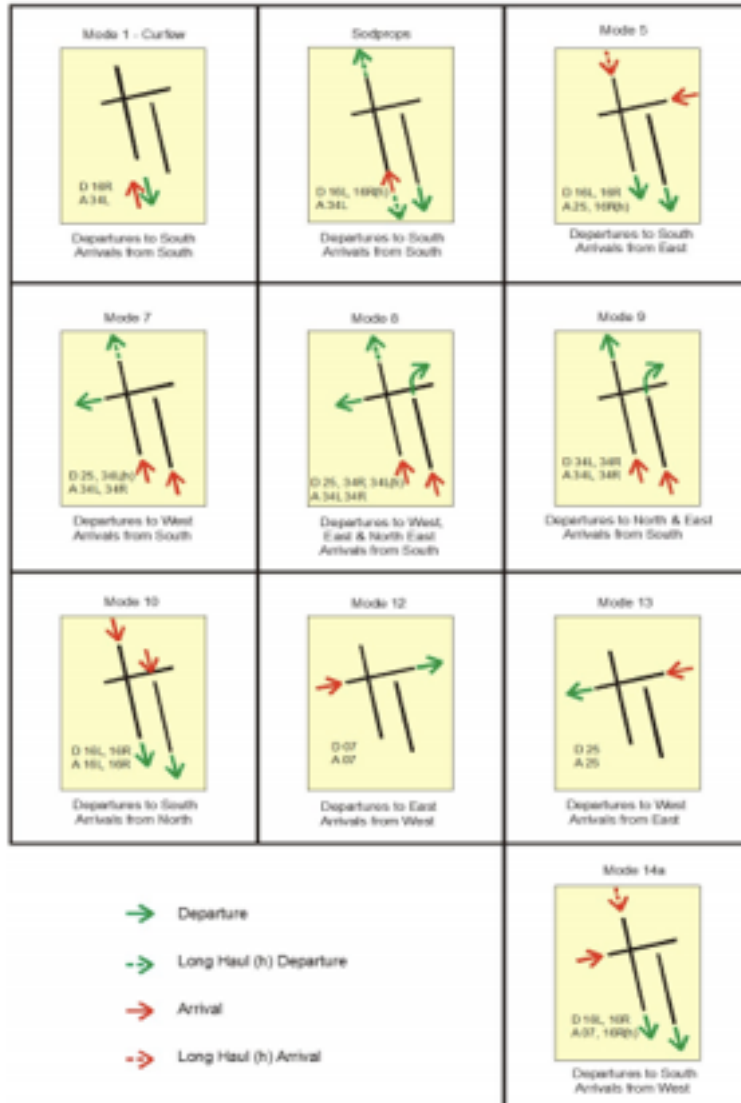
The existing movement and curfew are targeted at noise outcomes directly as they are about limiting the number of flights that create noise pollution and disturbance on the community, and are achieving exactly what they are intended to achieve. The proposals from the Airport or the Industry are all aimed in one way or another at increasing the number of aircraft that can operate at the Airport, not reducing their overall noise impact or meeting noise objectives. The existing cap and curfew regulations must remain. However, If the Commission is serious about giving priority to meeting current noise objectives then it should also recommend the adoption of measures such as a lower cap during non-peak periods that would enable the LTOP noise sharing modes to be used to the extent envisaged by the Plan to achieve its noise sharing objectives and targets.

Conclusion

It is apparent from its draft report that the Productivity Commission has little understanding of the effects of aircraft noise on the hundreds of thousands of Sydney residents that are subject to increasing amounts of it every day. The current movement cap and curfew are working as intended to put limits on the numbers, types and times that aircraft can operate at Sydney Airport in order to provide some balance between the competing demands of the aviation industry and community's health and amenity. Proposals to "reform" these regulations are simply aimed at increasing the number of aircraft that can operate at the Airport to benefit the Airport's and Airline's convenience and profitability. However, if anything there is a strong case for the movement cap to be reduced, at least during non-peak periods to allow noise sharing objectives to be met. Statements and conclusions by the Productivity Commission in favour of changes to the cap and curfew would further tip the balance of regulation in favour of Sydney Airport to the detriment of the health and amenity of noise effected residents of Sydney and should be withdrawn in its final report. At a minimum, **the existing Cap and Curfew regulations must remain.**

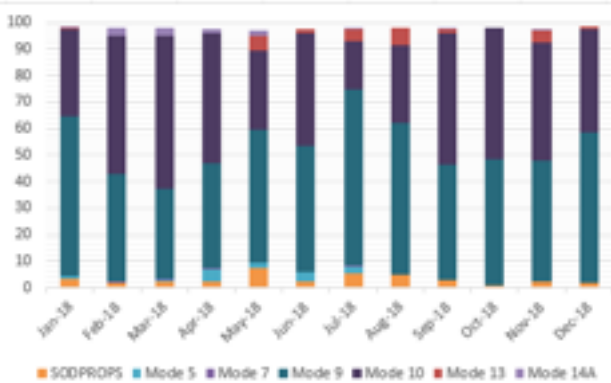
APPENDIX

Runway Modes of Operation



Mode usage 2018

This chart shows the percentage of time each month different runway modes were used during the non-curfew hours. The curfew mode is excluded.



Source: <http://aircraftnoiseinfo.bksv.com/sydney/ltop/>