

MELBOURNE AIRPORT

Wednesday 4 May 2022

Australian Communications and Media Authority (ACMA)
Red Building
Benjamin Offices
Chan Street
Belconnen ACT 2617

Submitted via weblink: [Proposed spectrum re-allocation declaration for the 3.4 GHz and 3.7 GHz bands - IFC 10/2022: Consultation submission form | ACMA](#)

Response Re: Proposed spectrum re-allocation declaration for the 3.4 GHz and 3.7 GHz bands

Australia Pacific Airports (Melbourne) Pty Limited (APAM or We) refers to the ACMA's consultation paper seeking feedback from interested stakeholders on the proposed spectrum re-allocation declaration for the 3.4 GHz and 3.7 GHz bands and is pleased to provide a response.

[REDACTED]

We welcome the opportunity to discuss this response further with you and please do not hesitate to contact the APAM Head of Government and Policy, Edward Martin, if you have any questions by email [REDACTED].

Regards

Jai McDermott
Chief of Ground Transport, Public Affairs & Sustainability

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Summary

APAM acknowledges the expansion of 5G technologies within Australia in line with the global roll-out is necessary. We support our customers and surrounding communities having access to a more efficient network and data capacity.

We also seek an outcome that ensures the safety of aircraft and our airline passengers and request the ACMA to continue consulting with the aviation industry as the project progresses through to implementation to ensure a whole of government approach is taken to mitigate the risks.

The position of APAM is that no technology with the potential to disrupt aviation operations should be implemented without first assessing the potential risks to safety. Any further allocation of frequencies to the 5G network in the 3400–4200 MHz range, or for any other use, must be carefully considered to ensure consistency with international standards and it does not disrupt aviation safety or commercial operations.

If frequencies to the 5G network in the 3400–4200 MHz range are to be made available, a suitable frequency ‘buffer’ is desired (>200MHz), as well as establishing limits to power output for any transmission sources near airports which are in the higher end of these frequency spectrums.

Reducing the power of transmitters that need to be placed near airports is also a potential solution. We understand this would likely require additional transmitters and could pose additional costs for network providers.

Enabling an exclusion zone similar to the French and Canadian exclusion zones near airports as well as angling the 5G tower antennas inward to mitigate the interference with aircraft control systems should also be considered.

Operations and safety risks

Australia’s airports are required to provide a safe and efficient operation to all airline stakeholders (both domestic and international). In 2019 APAM facilitated more than 245,000 flight movements and more than 37 million passenger movements and is forecast to continue growing as we build additional capacity through a third runway.

Australia’s airports are certified by the Civil Aviation Safety Authority (CASA) and are required to demonstrate acceptable levels of safety before introducing any new infrastructure or systems.

Airport operators also expect that potential hazards are systematically managed by other stakeholders, including instances where external developments or activities will impact upon their safeguarding.

International experience indicates that the proposed 5G allocation into higher frequency bands may interfere with the Radar Altimeters on aircraft which are understood to operate down to 4200 MHz. APAM currently operates precision approach procedures down to a CAT IIIB level.

These approach procedures are a core operational function and permit aircraft to operate in near zero visibility conditions down to a height above the runway of only 50 feet (15m). An integral

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component of these procedures is the reliance on aircraft utilising radar altimeters as a critical system to manage these low visibility approaches safely.

International airlines are required to comply with the regulations of their home state. Any failure to meet safety requirements, or where the correct function of the radar altimeter may be adversely impacted, this could result in International Airlines choosing or being directed to limit their aircraft operations to Australia, reducing capacity and access to international markets.

This outcome has already been experienced in the United States with an international operator significantly limiting flights to several major airports due to concerns with 5G interference on aircraft systems.

Additionally, if an aircraft was disrupted from using the Instrument Landing System (ILS), this would impact capacity in adverse weather and may force the aircraft conduct to miss an approach or divert to another airport. Either event would have an adverse impact on safety by adding to flight crew and air traffic control workloads.

Commercial and planning risks

In the event that the additional 5G spectrum is allocated in future, and aircraft systems (and by extension these approach procedures) are subsequently impacted, both domestic and international airlines will face the possibility of diversions to other major airports.

Such diversions add additional task demand on both flight crews and air traffic control, as well as impact upon the commercial viability of operations across the network.

Airports rely on passenger volume for commercial viability so any disruption to commercial operations through airlines changing routes in their network would impact revenue at a time when the aviation industry is recovering from the COVID-19 pandemic that collapsed our capacity to 1%.

Additionally, there may also be significant commercial and planning implications on future infrastructure projects such as the design and operation of APAM's third runway. This is a 3.6km north-south runway orientation that is critical to our strategic plan to build more capacity and develop the precinct as a federally leased airport.