



Airline Views

June 2017

Efficient parallel runways



BARA supports truly parallel runway designs to increase airport capacity and the efficiency of safe aircraft operations.

The proposed new 'offset' runway at Melbourne Airport represents an outmoded measure to managing aircraft noise with respect to local communities.

Modern technologies, procedures and practices can best mitigate the impact of aircraft noise. Future operational systems are best supported by modern airport infrastructure and airspace designs.

Outgoing passenger card

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The Department of Immigration and Border Protection has advised airlines that the 'Outgoing passenger card' will end on 1 July 2017.

This move will improve both operational efficiency at Australia's international airports and the overall passenger experience.

Improvements in technology should allow a progressive move away from manual/paper processes for international travellers.

BARA welcomes American Airlines



American Airlines (AA) has joined BARA's growing membership. AA operates daily SYD/LAX with its flagship 310 seat B777-300ER.

BARA's members cover more than 90% of international passenger flights, and carry most exports and imports of freight to and from Australia.

BARA's vision for international aviation in Australia is 'high quality, adaptive and efficient'.

Airport KPI regimes



Sydney Airport has implemented a key performance indicator (KPI) regime as part of its agreement with international airlines.

Timely performance data is critical to effective engagement between airlines and the airport operators. It is also necessary to direct resources to where they can deliver most benefit.

BARA's service level framework offers a path to improved performance. It includes KPIs; implementing performance improvement projects; understanding and recognising significantly delayed flights; and effective consultative forums with international airlines.

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Efficient parallel runways

Australia's approach to aircraft noise mitigation can be haphazard. The use of outmoded measures can compromise the operational performance of parallel runways. New generation aircraft can deliver better outcomes for the environment and local communities if they can operate to their potential, which is best supported by modern infrastructure designs.

A new runway can cost airlines some \$100 million a year and is a major project for airlines, airport operators and communities. Airlines are keen to ensure new runways deliver the largest possible improvements in capacity <u>and</u> the efficiency of safe aircraft operations.

Changes to aircraft and airport operations will be necessary to support growing traffic volumes. New runways are one way of increasing airport capacity along with improving the performance of existing airfield and terminal infrastructure.

Historically, landing aircraft were required to fly a long-final on a fixed glide-slope to the runway threshold. This offered little opportunity to relieve noise other than by using capacity caps and operating restrictions. Modern technology now offers much better outcomes for the community.

Truly parallel runways

Widely-spaced parallel runways offer the best opportunity to make airport operations as efficient as possible. They do this by increasing capacity while still allowing independent aircraft operations. This can be done without using additional technologies, such as a precision runway monitor (PRM), and minimises any sequencing restriction. Aircraft can also fly arrival trajectories closer to their ideal performance through best exploiting new generation aircraft technologies: their flight management system (FMS), required navigation performance and ground based augmentation system.

Getting the best performance from modern aircraft also fits with achieving the best aircraft noise outcomes for the community. Aircraft engines burn less fuel and make less noise when they are allowed to fly to their ideal trajectory. There may also be opportunities to design flight paths to better support equitable noise sharing.

Brisbane Airport's parallel runway design will enable 'independent simultaneous approaches' (see the highly simplified diagram below). The runways are widely spaced, supporting an airspace architecture designed for current and future aircraft technologies, while accommodating a diminishing number of legacy aircraft.

Combined with efficient runway and airspace design, BARA supports the International Civil Aviation Organization's (ICAO) 'balanced approach' in best addressing aircraft noise.





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Melbourne Airport's offset runway

Melbourne Airport is proposing to construct a new east–west runway to the south of the existing east–west runway.

A specific feature of the proposal is a 2° 'splay' or angle from the existing east–west runway (see the highly simplified diagram below). BARA understands this position was taken some 20 years ago as a noise mitigation measure offered during community consultation.

It is difficult to see the proposal generating any real benefit for communities surrounding the airport. It will shift aircraft only about 200 metres on approach to the new runway compared with truly parallel operations. If the standard 15° turn away from the parallel runway when airborne were applied to simultaneous departures, there would be little or no difference in ground perceived noise.

The problem with the offset runway is that, based on current ICAO standards, there is not enough distance between aircraft well out from the airport to support independent parallel runway operations. This means either:

- (a) dependent approaches to the runway, or
- (b) dependent approaches followed by independent approaches when the runway spacing becomes sufficient,

will be required compared with modern and efficient independent simultaneous approaches that are part of truly parallel operations. Either option will compromise the aircraft's best trajectory together with:

- increased controller surveillance of aircraft (either passively through PRM or actively through radar standards)
- less ability for aircraft to fully exploit FMS and new generation capabilities in minimising fuel burn and aircraft noise
- reduced ability for aircraft to realise the full technology investment potential.

The deployment of PRM technology and Airservices Australia's associated staffing requirements will come at significant cost to airlines while reducing potential operational efficiency. For the community around the airport, the reduced operational performance of modern aircraft, including any denial of a 'continuous descent approach', will likely increase their total noise exposure.

Aircraft and air navigation technologies have advanced greatly over the last 20 years and will continue to do so over the coming decades. If embraced, these new technologies allow for increasingly efficient safe aircraft operations to the benefit of local communities and airlines.

An offset runway as a noise mitigation measure is 20 years out of date, likely delivering no benefit to local communities. Airlines can deliver better aircraft noise outcomes for the community through modern operations supported by truly parallel runways.





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Airport KPI regimes

Understanding operational performance and customer satisfaction is a standard activity for businesses in competitive markets. To better place the industry so it can deal with the performance issues associated with continued growth, the major international airports need to develop a consistent set of key performance indicators (KPIs). Sydney Airport has implemented an agreed KPI regime for international services.

The doubling of Australia's international aviation industry to some 38 million passengers a year over the past decade has not come without issues. Member airlines are expressing increasing concerns to BARA over the extent of congestion during 'peak time' demands by airlines, especially at Sydney and Melbourne airports. Such congestion extends to access to terminals for passengers, check-in, baggage system reliability and airfield operations.

Member airlines commonly cite to BARA the minimal reporting by airports about their service standards and performance. When significant issues arise (eg baggage system failures), there can be disagreements with the airport operator over the extent and cause of the problem.

Informative and timely data can make a sizeable contribution to improved outcomes by simply making the situation under consideration transparent. It makes the engagement more focused and productive.

Despite the benefits offered, under the 'lighthanded' economic regulatory arrangements the major Australian airports have only developed patchy KPI regimes. BARA notes that better performance monitoring and information sharing is often observed at overseas airports with independent economic regulation.

The KPI regime at Sydney Airport

In negotiating a new agreement for its member airlines with Sydney Airport in 2015, BARA sought the development and implementation of a service level framework. For this to add value, it needed to be underpinned by a comprehensive KPI regime to raise the level of effective engagement between airlines and the airport.

The KPI regime negotiated with Sydney Airport focuses on the final outcomes for airlines and passengers together with contributing intermediate stages. The KPIs cover:

- 1. on-time performance: peak and off-peak arrivals and departures
- 2. baggage: mishandled bag rates by source of bag, time critical and recovery bags
- passenger experience: including the presentation and cleanliness of the international terminal and bathrooms
- 4. safety: passenger incidents.

BARA and Sydney Airport have devoted the resources necessary to agree and implement a sound set of KPIs as envisaged under the agreement. An external facilitator helped Sydney Airport and BARA to refine the list and reach agreement on it.

The KPIs have evolved over the past two years and incorporate measurement initiatives by Sydney Airport (eg security queue waiting times) and changing airline/airport operations as an immediate response to rapid growth (ie bussing operations). Further initiatives include airlines accessing their individual data to see how they compare to outcomes across all airlines.

An agreed KPI regime is a first step towards an effective service level framework and commercial arrangements underpinned by agreed levels of services. The KPI regime developed and implemented with Sydney Airport should serve as a model for Australia's other major international airports to consider.