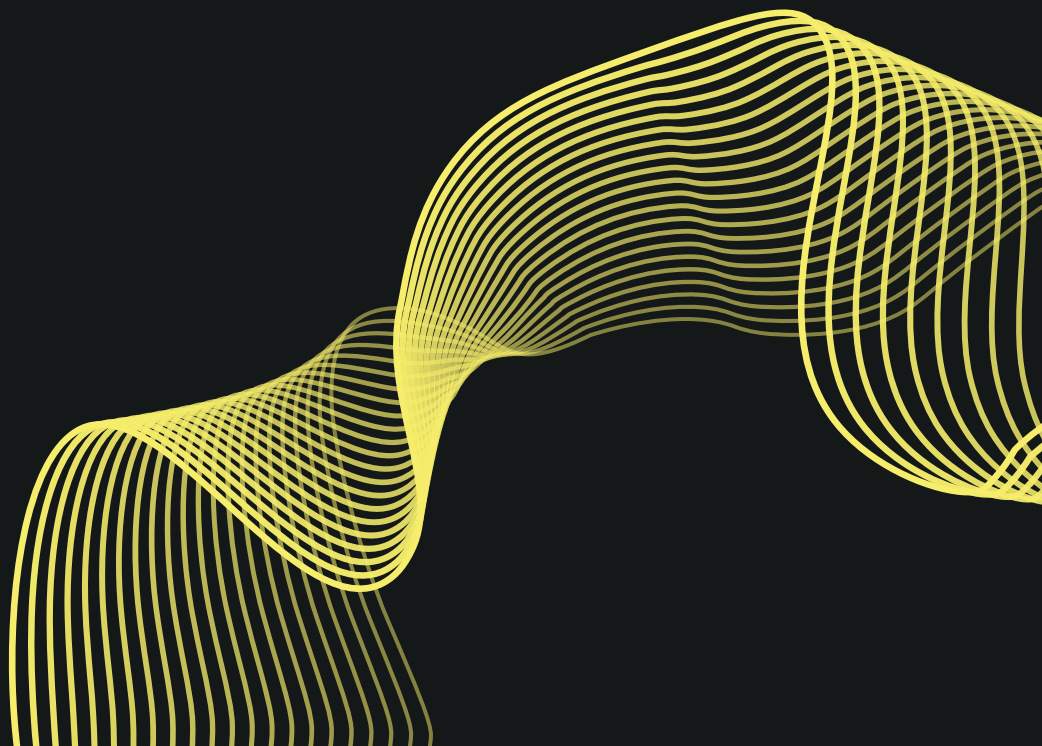


Melbourne Airport Draft Noise Sharing Plan

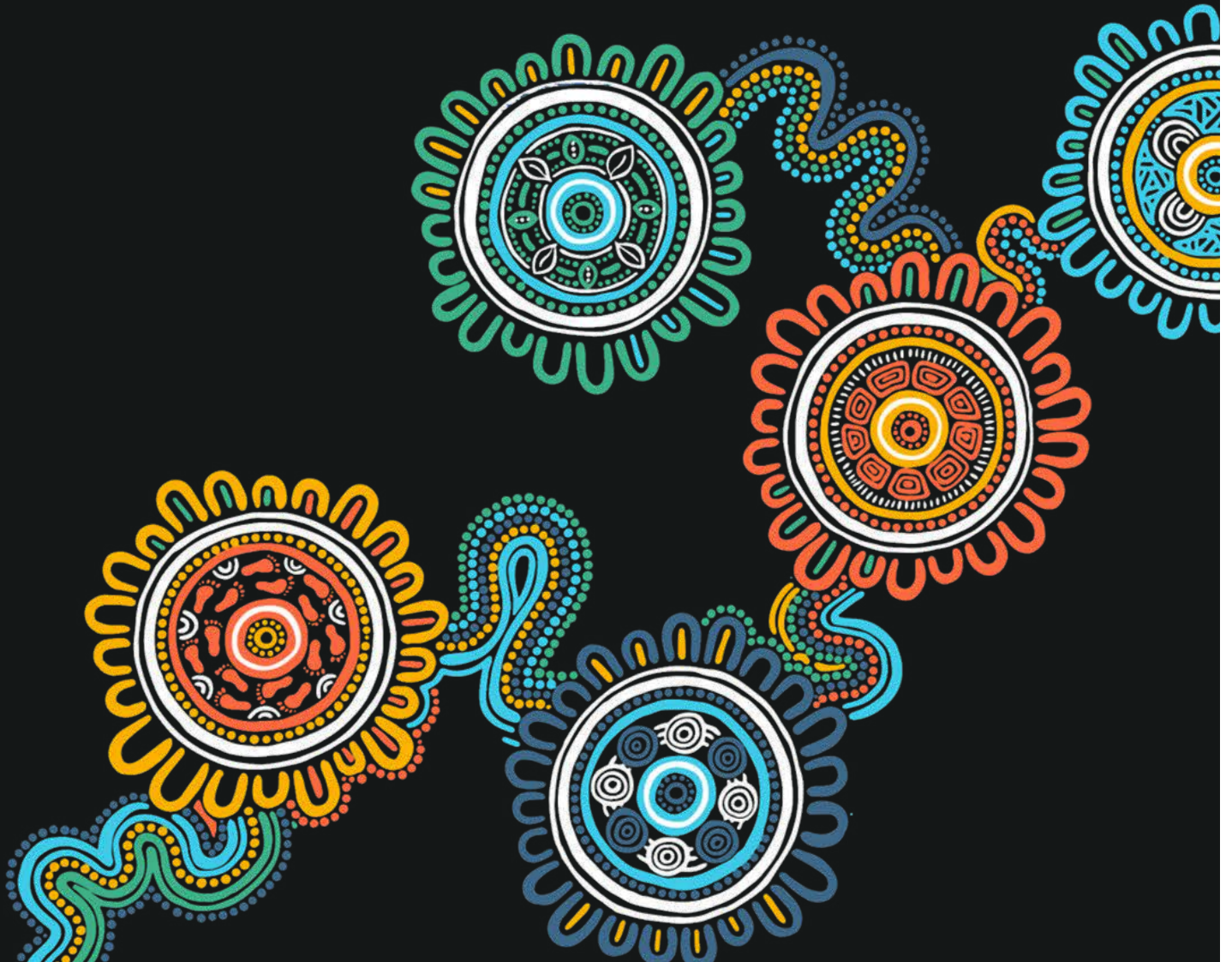
August 2026



Acknowledgement of Country

GHD and Trax acknowledges Aboriginal and Torres Strait Islander peoples as the original Custodians of the lands and water throughout Australia. We recognise their strength, diversity, resilience, and deep connections to Country and sky as nurtured across generations. We pay our respects to Elders, past and present, as they hold the memories, knowledges and spirit of Australia.

We are committed to partnering with and learning from Aboriginal and Torres Strait Islander peoples as we continue to foster sustainability in water, energy, and communities for the prosperity of future generations.



Executive summary

The Noise Sharing Plan explains how runways and flight paths will be used once construction associated with the Third Runway project and Eastern Extension project are complete. It will be implemented only after all construction works are finished.

After the new third runway becomes operational (circa 2031), further works will be needed on the existing north-south runway as part of the broader Third Runway project. During this period, the Noise Sharing Plan will not be fully implemented because changes to runway availability will affect how runways and flight paths are used.

Once finalised, the **Noise Sharing and Airspace Concept Plan** (referred to in this document as the Noise Sharing Plan) explains how runways and flight paths will be used once the three runways are operating. Outside of peak periods, it sets out how aircraft movements can be managed so noise is shared across communities, while always keeping safety as the top priority.

The Noise Sharing Plan does not eliminate aircraft noise. Instead, it focuses on predictability and fairness by rotating runway use and flight paths when conditions allow, so no single area continually experiences noise from Melbourne Airport.

Noise Sharing Plan at a glance:

- The Noise Sharing Plan sets out how runway operating modes and flight paths will be used to manage and share aircraft noise across communities, once the construction of the third runway and Eastern extension is complete.
- Noise sharing will be prioritised at all times outside of peak periods and when weather conditions allow to avoid repeated concentration of aircraft noise over the same communities.
- Noise sharing does not eliminate aircraft noise; it focuses on providing communities with meaningful periods of respite through noise sharing principles, where alternatives exist.
- The Noise Sharing Plan is a condition of approval under the Third Runway MDP and must be informed by community and aviation industry engagement and aligned with regulatory requirements.

- Feedback from communities and aviation stakeholders has informed the principles, mode priorities, alternation approach, and reporting commitments in this draft Noise Sharing Plan.
- The Noise Sharing Plan outlines how aircraft noise and runway use will be monitored and reported using established systems, with clear reporting on mode usage, alternation, and exceptions.

Feedback is now being invited on this draft Noise Sharing Plan. All feedback received will be summarised and reported back to participants to show how community views have been considered in the development of the Noise Sharing Plan.

What happens next

The draft Noise Sharing Plan is run through Air Traffic Control simulation. This may be followed by further refinement and another round of community feedback prior to finalising for Ministerial review, and detailed design by Airservices Australia before implementation.

Why the Noise Sharing Plan is needed

The Federal Government required Australia Pacific Airports (Melbourne) Pty Ltd (APAM), the owner and operator of Melbourne Airport, to engage independent consultants to prepare a Noise Sharing Plan as part of the approval conditions for the third runway.

The introduction of an additional runway at Melbourne Airport enables a wider range of operating modes, including different day, high-capacity and night-time configurations. These expanded operational options make it important to clearly explain how decisions about runway use will be made and how aircraft noise will be managed and shared across Melbourne.

This draft Noise Sharing Plan provides a clear and transparent framework, informed by feedback from community members and the aviation industry, as well as through technical design processes and regulatory oversight. The draft Noise Sharing Plan will be further refined and finalised before being released for formal consultation and submission prior to review by the Federal Minister of Infrastructure, Transport, Regional Development and Local Government.

Principles guiding this draft Noise Sharing Plan

The Noise Sharing Plan is guided by clear principles that reflect what the community and industry stakeholders told us during the Phase 1 engagement and what is required to operate the airport safely and efficiently. These include:

- Safety is prioritised at all times.
- Aircraft noise should not be concentrated over the same communities where alternatives exist.
- Communities should receive meaningful periods of respite from aircraft noise.
- Noise sharing should be predictable and clearly explained.
- Decisions should be transparent and informed by community and stakeholder feedback, demonstrating how feedback has been considered.
- Flight path design should optimise efficiency where safe to do so to minimise emission impacts.
- Noise sharing measures must be operationally feasible.
- The Noise Sharing Plan is developed in accordance with the Minister's conditions of approval.

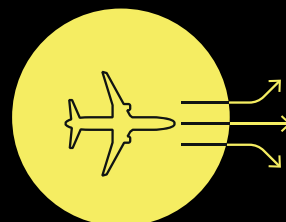
The Noise Sharing Plan will:



Share aircraft noise
across different areas



Give communities
a meaningful break
from aircraft noise,
called respite



Use different runway
operating modes
depending on weather
conditions and flight
demands

What is included – and what is not

The draft Noise Sharing Plan applies to aircraft operating at Melbourne Airport across the broader Melbourne Basin (refer to Figure 1.4) and considers how operations interact with nearby airports, including Essendon Fields Airport and Moorabbin Airport.

The draft Noise Sharing Plan focuses on noise from aircraft while they are in flight. It does not address airport curfews, land use planning, or aircraft design, which are managed through separate laws and processes. Ground based noise is also outside the scope of the Noise Sharing Plan and is regulated under the Airport Environment Protection Regulations, which define ground based noise to include activities such as ground running of aircraft, taxiing, general airport operations, and construction.

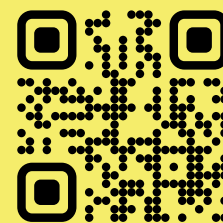
The draft Noise Sharing Plan cannot influence the direction of the third runway. Melbourne Airport is building a north south alignment as aircraft need to take off and land into the wind for safety. The north south direction matches Melbourne's typical wind conditions.

What may change between the draft and final Noise Sharing Plan

This draft Noise Sharing Plan sets out the runway operating modes and associated flight paths that form the basis of the noise sharing approach. While the runway operating modes in the draft Noise Sharing Plan are not expected to change, the forecast frequency usage of each mode and the flight paths remain subject to further refinement. The indicative usage ranges presented in this draft have been developed using current modelling, forecast demand and planning assumptions. This may be updated as additional technical analysis, operational assessment and validation work is completed. As a result, the forecast distribution of aircraft movements across runway operating modes and associated flight paths may differ from the usage ranges presented in this draft Noise Sharing Plan.

Feedback is now being invited on this draft Noise Sharing Plan. All feedback received will be summarised and reported back to participants to show how community views have been considered in the development of the draft Noise Sharing Plan.

To attend a community session, see Melbourne Airport's Major Projects Hub.



Following consultation on this draft Noise Sharing Plan, flight paths will be simulated and refined to validate safety and operational feasibility. The draft Noise Sharing Plan will then be updated and subject to further public consultation. Following consultation, the revised Noise Sharing Plan will be reviewed and endorsed by Airservices Australia before being submitted to the Federal Minister for Infrastructure, Transport, Regional Development and Local Government for approval. Once approved, Airservices Australia will undertake detailed airspace/flight path design prior to implementation.

The Noise Sharing Plan is intended to support long term growth at Melbourne Airport while managing aircraft noise in a more balanced and transparent way for communities across Melbourne.

Understanding respite

The introduction of additional runway operating modes will provide more opportunities to share aircraft noise across Melbourne, creating periods of respite for communities.

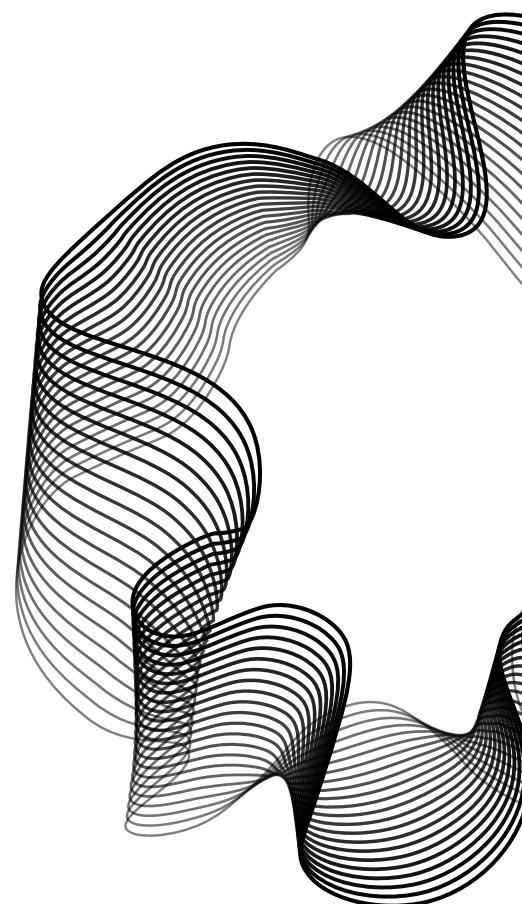
Because each community sits in a different location relative to the airport and flight paths, the runway operating modes that most affect one area may be different from those affecting another. For each community, we identify the runway modes that are expected to contribute most of the aircraft activity overhead and show how often those modes are forecast to operate. The periods when those modes are not in use provide the opportunity for respite, as aircraft are expected to be operating on different runways or following different flight paths.

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Abbreviations and acronyms

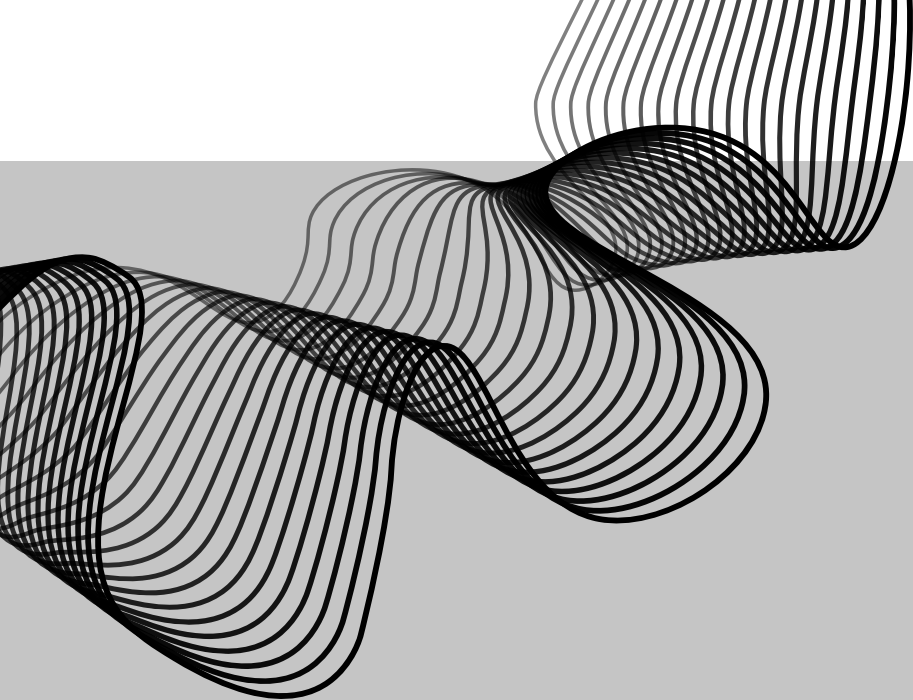
AEDT	Aviation Environmental Design Tool
AIP	Aeronautical Information Publication
ANEC	Australian Noise Exposure Concept
ANEF	Australian Noise Exposure Forecast
ANEI	Australian Noise Exposure Index
ATC	Air Traffic Control
ANO	Aircraft Noise Ombudsman
CACG	Community Aviation Consultation Group
CASA	Civil Aviation Safety Authority
dB	Decibels
DITRDCSA	Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts
EEP	Eastern Extension Project
EPNdB	Effective Perceived Noise Level in decibels
FAA	Federal Aviation Administration
GA	General aviation
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
LAHSO	Land and Hold Short Operations
MDP	Major Development Plan
NAP	Noise Abatement Procedures
NASF	National Airports Safeguarding Framework
NDB	Non-directional beacon
NSP	Noise Sharing Plan
PANS-OPS	Procedures for Air Navigation Services – Aircraft Operations
RNP-AR	Required Navigation Performance – Authorisation Required
SIDs	Standard Instrument Departures
SM	Segregated Mode
SODPROPS	Simultaneous Opposite Direction Parallel Runway Operations
SRO	Single Runway Operations
STARs	Standard Terminal Arrival Routes
VFR	Visual Flight Rules
YMEN	Essendon Fields Airport

Glossary

Term	Definition
Aircraft movement	The total number of aircraft arrivals and departures at an airport, usually counted as individual take offs and landings.
Airspace	The defined volume of air above the ground within which aircraft operate. Airspace is managed to ensure safe separation between aircraft and may include different rules and levels of air traffic control service.
Airspace design	The process of planning and structuring airspace, flight paths and procedures to safely manage aircraft while balancing operational efficiency, environmental considerations and community impacts.
Airservices Australia	The Australian Government agency responsible for air traffic control, airspace design and flight path management at Australian airports.
Alternation	Alternation is the switching between segregated runway operating modes to distribute aircraft noise exposure between communities and provide periods of respite.
Arrival (aircraft)	The phase of flight when an aircraft descends and approaches an airport to land.
Australian Noise Exposure Forecast (ANEF)	A predictive noise contour system used for land use planning around airports. ANEF indicates the long term average exposure to aircraft noise.
Australian Noise Exposure Index (ANEI)	A metric that measures actual aircraft noise exposure based on real flight and noise monitoring data over time.
Civil Aviation Safety Authority (CASA)	Australia's aviation safety regulator, responsible for enforcing safety standards for aircraft operations, airspace and flight procedures.
Conditions of approval	The draft and final Noise Sharing Plan must be approved by the Minister in accordance with the conditions of approval before the third runway can operate.
Controlled airspace	Airspace where air traffic control services are provided, and where specific rules apply to aircraft operations to ensure safe separation.
Cross runway operations	Runway configurations where aircraft use two runways that intersect or are oriented in different directions at the same time.
Day hours	For the purposes of the Noise Sharing Plan, day hours are 0600 to 2300 hours local time.
Decibels (dB)	A unit used to measure sound levels. A small change in decibels can represent a noticeable difference in how loud a sound is perceived.
Departure (aircraft)	The phase of flight when an aircraft takes off and climbs away from an airport.
Flight path	The three dimensional route that an aircraft follows during arrival or departure. In practice, aircraft operate within a corridor rather than a single precise line.
General Aviation (GA)	All civil aviation operations other than scheduled commercial airline flights, including recreational, training, emergency and private flying.
Independent Parallel Runway Operations (IPRO)	Operations where two parallel runways are used at the same time with aircraft arriving or departing independently, subject to strict international separation standards.

Term	Definition
Instrument Flight Rules (IFR)	Rules that allow aircraft to fly using instruments and air traffic control guidance rather than visual reference, typically used in poor weather conditions.
Instrument Landing System (ILS)	A ground based navigation system that provides pilots with precise guidance to land an aircraft, especially in low visibility conditions.
LA_{max}	A measurement of the peak noise level produced by an overflying aircraft, either as a modelled prediction or a recorded observation.
Land and Hold Short Operations (LAHSO)	A high capacity runway configuration where aircraft land on one runway and are required to stop before crossing another active runway. LAHSO will not be used once the third runway is operational.
Major Development Plan (MDP)	A statutory planning document required under the Airports Act 1996 for major airport infrastructure projects, subject to public consultation and ministerial approval.
Melbourne Basin	An area within a radius of approximately 56 kilometres around Melbourne Airport in which aircraft operations associated with Melbourne Airport and its associated controlled airspace operate.
Mixed Mode operations	Runway configurations where aircraft arrivals and departures occur on two parallel runways at the same time, typically used to maximise capacity during peak periods.
Movement	See aircraft movement.
N-above	A framework established to characterise aircraft noise levels by counting the number of noise events that exceed a given threshold. E.g. An N70 contour identifies locations that experience noise events at or above 70 decibels (dB(A)), a standard unit used to describe how loud a sound is heard.
Night hours	For the purposes of the Noise Sharing Plan, night hours are 2300 to 0600 hours local time.
Noise Abatement Procedures	Operational procedures designed to reduce aircraft noise impacts on communities, including preferred runways, flight paths and climb profiles.
Noise contours	Lines on a map showing areas exposed to similar levels of aircraft noise, used to understand and communicate noise impacts over a geographic area.
Noise sharing	An approach to airport operations that aims to distribute aircraft noise more equitably across different communities over time rather than concentrating it in one area.
Peak period	The time outlined by the Third Runway MDP conditions of approval as 0700–1100 and 1600–2200 local time.
Required Navigation Performance – Authorisation Required (RNP-AR)	A navigation procedure requiring enhanced positional accuracy and specific operator approval, used for complex flight paths where higher precision is necessary.
Respite	Outside of busy periods and when weather conditions allow, runway operating modes can be changed to give different communities a break from aircraft noise, also called noise respite.
Rolling hour	A method of measuring aircraft movements across a continuous 60 minute period, used to show variations in traffic across a full day.
Rotation	The operational management and sequencing of all available runway operating modes in response to operational requirements and prevailing conditions.

Term	Definition
Runway mode	The combination of runways used for arrivals and departures at a given time, including their direction of use.
Runway mode priority	The preferred order in which runway configurations are selected, subject to safety, weather and operational requirements.
Runway alternation	See Alternation.
Runway rotation	See Rotation.
Segregated Mode	A parallel runway configuration where arrivals use one runway and departures use the other, allowing greater control over traffic flows and noise distribution.
Simultaneous Opposite Direction Parallel Runway Operations (SODPROPS)	A night time runway configuration where parallel runways are used in opposite directions at the same time, subject to strict weather and traffic conditions.
Single Runway Operations (SRO)	Operations where all arrivals and departures use a single runway.
Standard Instrument Departures (SIDs)	Published routes that aircraft follow after take-off, designed to ensure safe separation and manage noise and airspace efficiently.
Stakeholder	A person, group or organisation with an interest in, or affected by, the Noise Sharing Plan.
Standard Instrument Arrivals (STARs)	Published routes aircraft follow when arriving at an airport, guiding them from cruise flight to the initial stages of approach.
Terminal Instrument Flight Procedure Obstacle Protection Surface (TIFPOP)	A technical airspace protection surface defined under aviation regulations. It is used to ensure that obstacles such as buildings or cranes do not interfere with aircraft operating under instrument flight procedures, particularly in low visibility conditions. It forms part of the broader airspace protection framework rather than noise management.
Touch and go	A training manoeuvre where an aircraft lands on a runway and takes off again without coming to a full stop. Touch and go operations are commonly used for pilot training.
Visual Flight Rules (VFR)	Rules permitting aircraft to operate using visual reference to the ground and other aircraft, generally in good weather conditions.
WebTrak	An online flight path and noise monitoring tool operated by Airservices Australia that allows the public to view aircraft movements and noise data.



1

Introduction

1. Introduction

Noise sharing represents a fundamental shift in how aircraft noise impacts are managed

- The third runway enables a deliberate move from concentrating noise to actively distributing it
- The draft Noise Sharing Plan establishes transparency as a core outcome, not a secondary consideration

The addition of a third runway will change how aircraft operate at Melbourne's Tullamarine Airport (Melbourne Airport), and how aircraft noise is experienced by surrounding communities.

With three runways in operation, there will be more options to manage arriving and departing aircraft, creating more opportunities to share aircraft noise between communities.

The **Noise Sharing and Airspace Concept Plan** (referred to in this document as the Noise Sharing Plan) has been prepared by independent consultants. Once finalised, the Noise Sharing Plan will form part of the conditions of approval for the Third Runway Major Development Plan (MDP). It sets out how, outside of peak periods, runway operating modes and flight paths can be planned and used to manage and share aircraft noise, with the aim of providing communities with periods of respite from aircraft noise, while maintaining safe and efficient airport operations. Figure 1.1 summarises the options considered for the draft Noise Sharing Plan, shaped by community and stakeholder feedback.

The Noise Sharing Plan provides more runway operating modes to increase opportunities for noise sharing.

Flight paths can vary throughout the day and from week to week, depending on safety, wind and operational conditions. The Noise Sharing Plan acts as a guide for Air Traffic Control to respond in these different conditions.



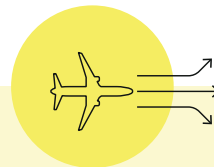
Using different runway operating modes to share noise

The operating modes can be used to manage the impact of aircraft noise on communities surrounding the airport, including providing communities with periods of relief from noise.



Scheduling respite periods for different areas across Melbourne

These may be either throughout the day, on a day-on / day-off program or week-on / week-off scenario.



The process of scheduling respite and noise sharing involves multiple factors. Understanding community preferences was necessary before drafting the Noise Sharing Plan.

Figure 1.1 Options for noise sharing

The Noise Sharing Plan is a condition of approval set by the Federal Minister for Infrastructure, Transport, Regional Development and Local Government as part of the Third Runway MDP. This condition requires Melbourne Airport to engage independent consultants to develop a Noise Sharing Plan informed by community and aviation industry engagement and consistent with Airservices Australia’s Community Engagement Standard. The basis of the Noise Sharing Plan is shown in Figure 1.2.

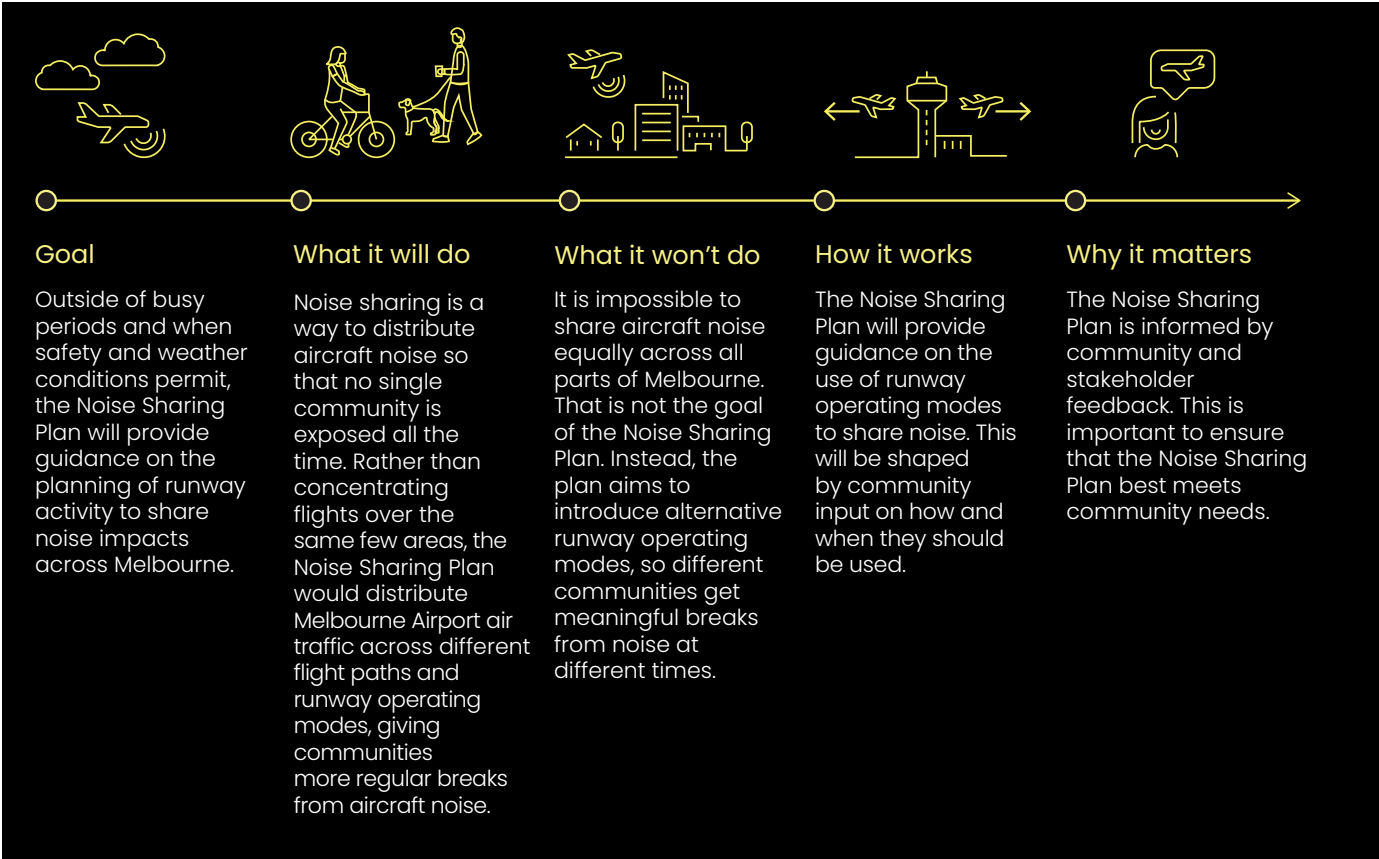


Figure 1.2 Noise Sharing Plan in summary

1.1 Principles of noise sharing

The Noise Sharing Plan is supported by two related sets of principles:

- The first set governs the development of the Noise Sharing Plan, including operational concepts, airspace design and engagement activities.
- The second set governs how the Noise Sharing Plan will be implemented when the third runway is operational, by guiding the selection of runway operating modes under different conditions.

Together, these principles link the overall intent of the Noise Sharing Plan with the operational decisions needed to put it into practice.

Noise Sharing Plan Principles

This draft Noise Sharing Plan is underpinned by a set of core principles that guide the development of operational concepts, airspace design and engagement activities. These principles have been informed by public feedback received between October 2025 and December 2025, to provide a consistent framework for decision making and to ensure that decision making (as per Airservices Flight Path Design principles) between safety, operational efficiency and community outcomes are considered in a structured and transparent manner.

These principles are consistently reflected across engagement and project materials:

- Safety is prioritised at all times.
- Outside of peak periods, aircraft noise should not be concentrated over the same communities where alternatives exist.
- Communities should receive meaningful periods of respite from aircraft noise.
- Opportunities for, and how, noise sharing is implemented is clearly explained.
- Decisions should be transparent and informed by community and stakeholder feedback, demonstrating how feedback has been considered.

- Flight path design should optimise efficiency where safe to do so to minimise the impact of aircraft emissions.
- Noise sharing measures must be operationally feasible.
- The Noise Sharing Plan is developed in accordance with the Third Runway MDP **conditions of approval**.

Operating principles

Once all construction associated with the Third Runway and Eastern Extension projects is complete, a separate set of operating principles will guide how runway operating modes are selected to implement noise sharing in practice, see Figure 1.3. These principles support transparent decision-making by explaining how safety, capacity, efficiency, noise sharing objectives and ministerial requirements are balanced under different operating conditions. Separate principles apply to daytime and night time periods to reflect differences in traffic demand, operational needs and community sensitivity to aircraft noise.

Daytime operating principles (0600–2300) 	Night-time operating principles (2300–0600) 
The priority order for selection of runway operating modes during the daytime period is based on the following principles (in no specific order): • Capacity-driven mode selection, where demand requires • Use of existing modes – during off-peak periods • Preference for segregated operations, when needed for capacity • Preference for northerly modes, consistent with the Major Development Plan • Alternation between like segregated modes, where operationally feasible	The priority order for runway operating modes during the night period is guided by the following principles (in no specific order): • Reduced need for high-capacity modes • Prioritisation of the SODPROPS mode where feasible • Use of existing modes where SODPROPS is unavailable • Where required for north-south operations, the existing north-south runway will be used

Figure 1.3 Proposed operating principles

1.2 Geographic area the Noise Sharing Plan considers

The draft Noise Sharing Plan applies to aircraft operations associated with Melbourne Airport within the controlled airspace around metropolitan Melbourne and adjoining regional centres. This area is also referred to as the Melbourne Basin and comprises a radius of approximately 56 kilometres around Melbourne Airport, as shown in Figure 1.4.

Consideration has also been given to ongoing operations at Moorabbin, RAAF Base Point Cook, Avalon Airport as well as others shown in Figure 1.4. Essendon Fields Airport has a specific focus throughout this draft Noise Sharing Plan due to its proximity to Melbourne Airport, its complementary runway operating modes and its specific inclusion in the conditions of approval for the third runway.

The draft Noise Sharing Plan considers noise impacts across this area, recognising that aircraft noise is experienced well beyond areas immediately surrounding Melbourne Airport. It also recognises that the introduction of the third runway will require changes to flight paths associated with other airports within the Melbourne Basin.



Figure 1.4 Melbourne Basin and associated airspace relevant to this Noise Sharing Plan

1.3 Melbourne Airport runway configuration

Melbourne Airport opened in 1970 with a two-runway intersecting (or “cross-runway”) configuration that remains in use today. This consists of a primary north-south runway (16/34) 3,657 metres in length, and a shorter east-west runway (09/27) 2,286 metres in length.

Both runways formed part of the original airport development, reflecting standard planning practices of the time which favoured a single primary runway supplemented by a secondary cross runway to maintain operational flexibility.

The orientation of the runways was primarily driven by Melbourne's prevailing wind conditions. Aircraft take-off and land into wind to maximise aerodynamic performance and to reduce the runway length required, both of which improve safety margins during these most critical phases of flight. The north-south runway was aligned to capture the dominant northerly and southerly winds, allowing it to accommodate the majority of aircraft movements and function as the airport's main runway. The east-west runway provides additional airport capacity, resilience

and operational continuity when crosswinds limit the use of the primary runway. This configuration has performed well over time; however growing demand has driven the need for parallel runway planning.

In response to forecast growth in air traffic demand, construction is now underway on the third runway at Melbourne Airport in the form of a new north-south parallel runway. This runway will be 3,000 metres in length and located 1,311 metres to the west of the existing north-south runway (16/34), providing a fully parallel configuration intended to increase capacity and improve operational efficiency.

Figure 1.5 illustrates the configuration of existing runways, the new parallel runway, and the Eastern Extension Project at Melbourne Airport. The Eastern Extension Project involves extending the eastern end of the east-west runway (Runway 09/27) to restore its operational length following partial shortening at the western end required for construction of the third runway. This project is a condition of approval for the third runway and supports the continued functionality of the east-west runway, enabling a broader range of runway operating modes and contributing to the effective sharing of aircraft noise across impacted communities.

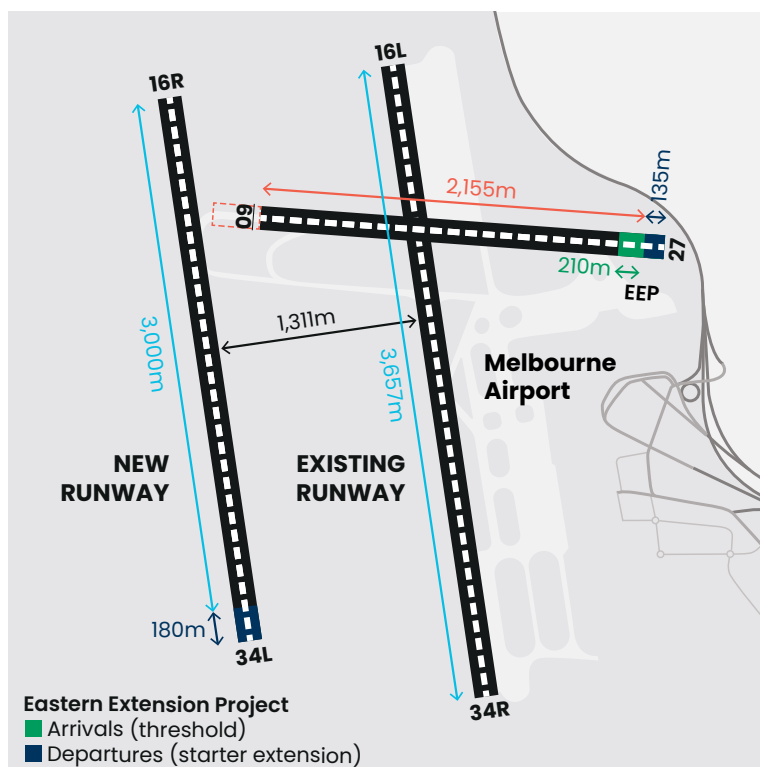


Figure 1.5 Current and future runway configuration

Runway naming follows international standards: each runway designator reflects the magnetic heading of the runway direction, rounded to the nearest ten degrees.

For example, Runway 34 aligns with a heading of approximately 340°.

Where two runways are parallel, left (L) and right (R) suffixes are used to distinguish between them.

The selection and orientation of the third runway, designated as Runway 16R/34L, was established through the 2022 Melbourne Airport Master Plan, following a comprehensive planning and assessment process. This process considered the two runway orientation options, balancing operational efficiency, safety, airspace integration and potential community impacts, including aircraft noise. The north-south orientation was selected as the preferred option, providing optimal capacity and resilience.

1.4 Traffic over a day

Figure 1.6 presents the distribution of aircraft movements throughout a typical operating day at Melbourne Airport during 2024 – 2025, expressed as the number of movements in a rolling hour across the full 24-hour period. The data is taken as an average weekday, with abnormal highs and lows filtered out.

The profile reflects a pattern characteristic of major capital city airports, with traffic reducing to a low overnight before building to a pronounced morning peak. Activity then remains at sustained levels throughout the remainder of the day, reflecting the broad spread of scheduled services across both domestic and international operations.

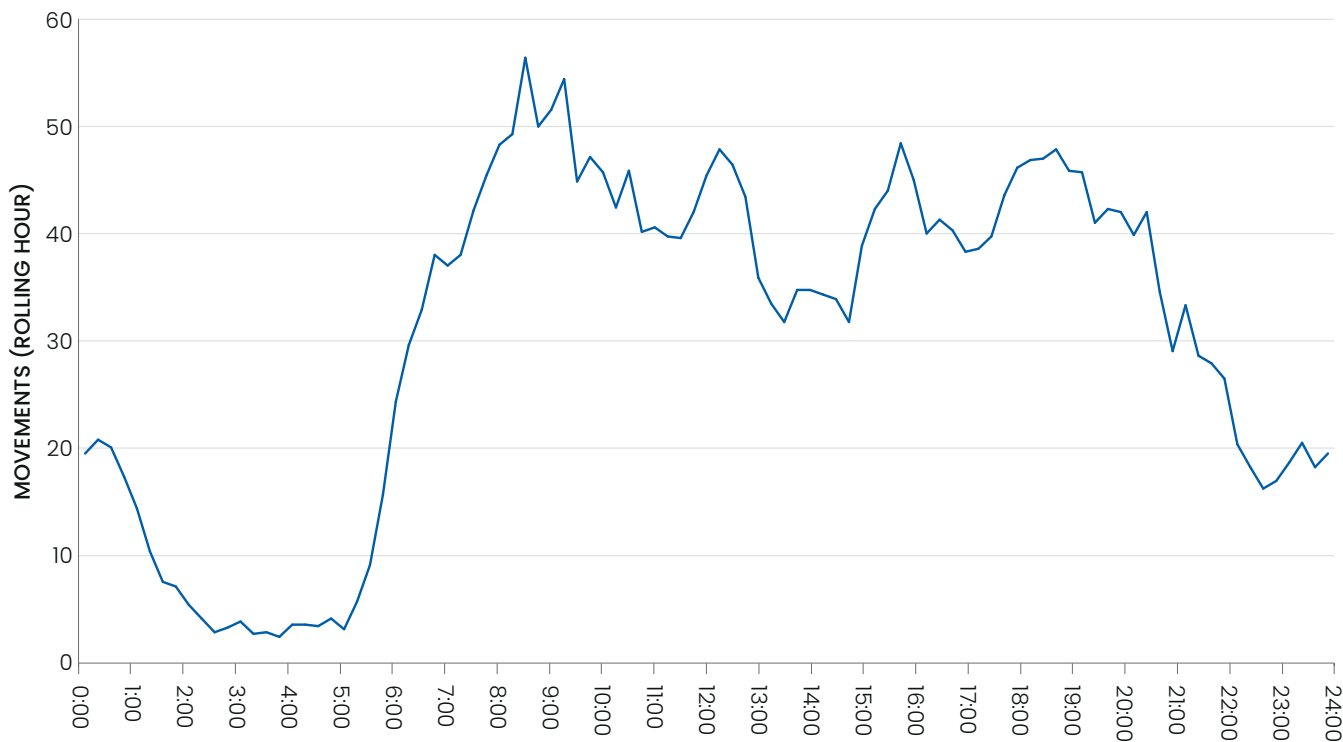


Figure 1.6 Movements in a typical day (rolling hour)

1.5 Historical flight paths

Historical arrival and departure flight tracks over a typical month at Melbourne Airport are presented in Figure 1.7. The contrast between arrivals and departures highlights a fundamental difference in how these procedures shape traffic distribution.

Arrival tracks (displayed in purple) exhibit a notably tighter lateral spread, reflecting the structured nature of instrument approach procedures which specify the track to be flown and align aircraft with the extended runway centreline well before touchdown. Departure tracks (displayed in orange), by contrast, display a considerably wider spread across the surrounding airspace. This is attributable to the departure procedure design, where variability in climb and turn performance across different aircraft types and weights results in a broader dispersal of flight tracks along the departure path.

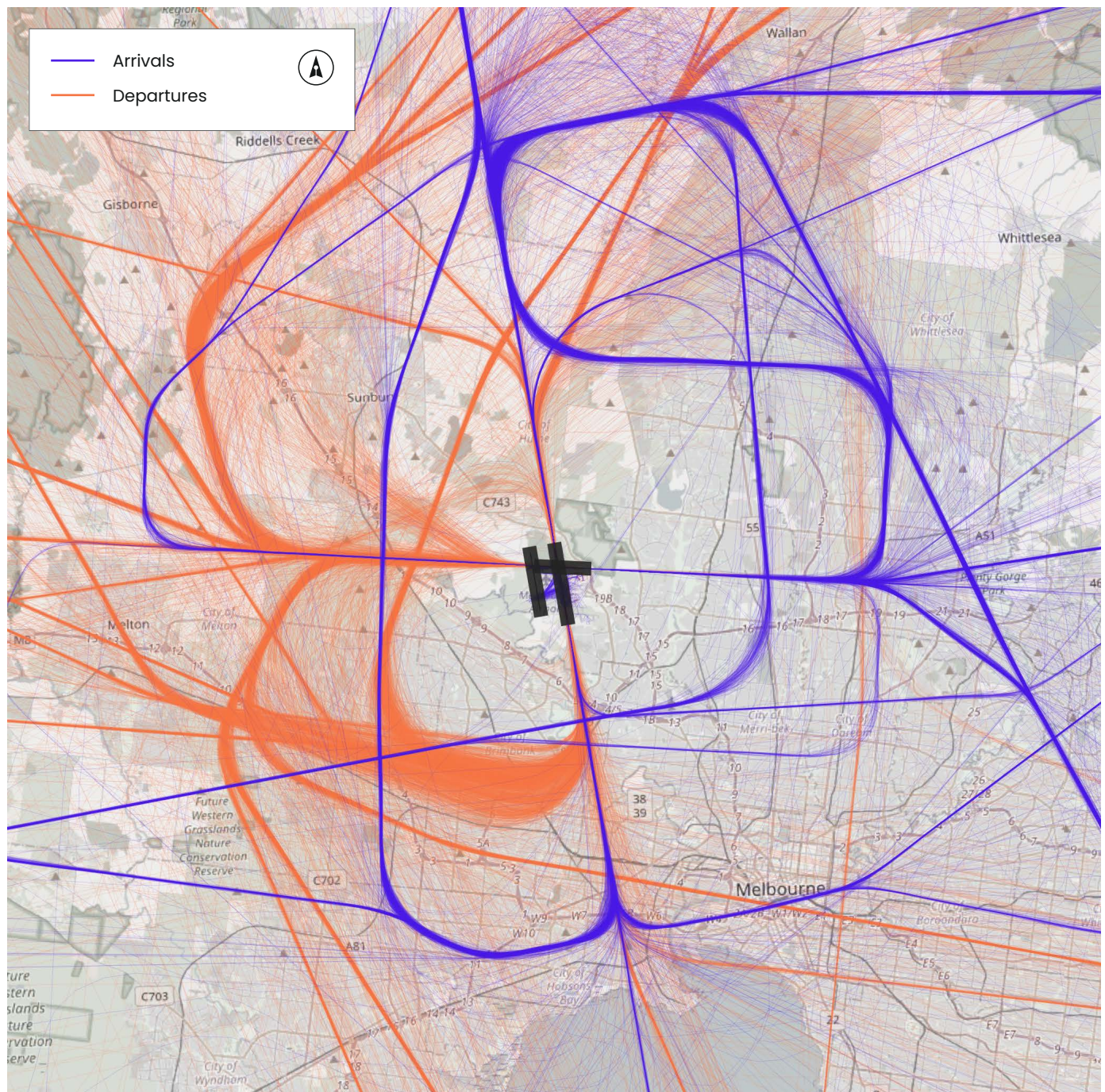


Figure 1.7 Melbourne Airport historical flight paths

1.6 Out of scope

The draft Noise Sharing Plan focuses on the distribution of aircraft operations and associated noise outcomes within the Melbourne Airport operating environment. However, there are several matters that fall outside its scope. These have either been through a previous planning and regulatory process and the decision has been finalised; are governed by legislative frameworks outside of the Noise Sharing Plan; or are managed by other levels of government.

The following items are out of scope and are not considered within this draft Noise Sharing Plan.

Airport curfews – Airport curfews have been established through Commonwealth legislation and are not determined by airport operators or air traffic management processes. Melbourne Airport operates 24 hours and will continue these hours of operation into the future. A curfew is not being considered, consistent with the Commonwealth Government’s 2024 Aviation White Paper, which focuses on managing aircraft noise through planning, operational measures and community engagement, rather than the introduction of additional operating restrictions that would constrain airport capacity.

International Civil Aviation Organization (ICAO) Balanced Approach to Aircraft Noise Management – The ICAO Balanced Approach provides a global framework for managing aircraft noise, including measures such as noise reduction at source, land use planning, operational procedures and operating restrictions. The draft Noise Sharing Plan focuses specifically on operational noise sharing within this broader framework and does not seek to redefine or replace the Balanced Approach.

Land use planning and zoning – Land use planning, including zoning decisions around the airport, is managed by the State and local governments. While the Melbourne Airport Australian Noise Exposure Forecast (ANEF) is an output of the Noise Sharing Plan, the adoption of the technically endorsed ANEF within the Melbourne Airport Environs Overlay (MAEO) in the Victorian Planning Scheme is a matter for the Victorian Government, as are the planning controls that apply within that framework.

Melbourne Airport Master Plan – The Master Plan sets out the long-term development of the airport, including infrastructure such as runways and terminals. The draft Noise Sharing Plan supports the operational aspects and noise modelling of the Master Plan but does not determine the broader strategic direction or infrastructure planning decisions contained within the Master Plan.

Distribution of aircraft at other airports – The draft Noise Sharing Plan focuses on runway use and aircraft operations at Melbourne Airport. While the draft Noise Sharing Plan influences the distribution of aircraft movements within the Melbourne Basin, it does not determine operations at other airports, which are managed independently by their respective operators and air navigation service arrangements. The requirement to implement noise sharing applies specifically to Melbourne Airport under the conditions of approval for the third runway. Other airports have been engaged during the development of the draft Noise Sharing Plan to incorporate a better understanding of broader operations and constraints.

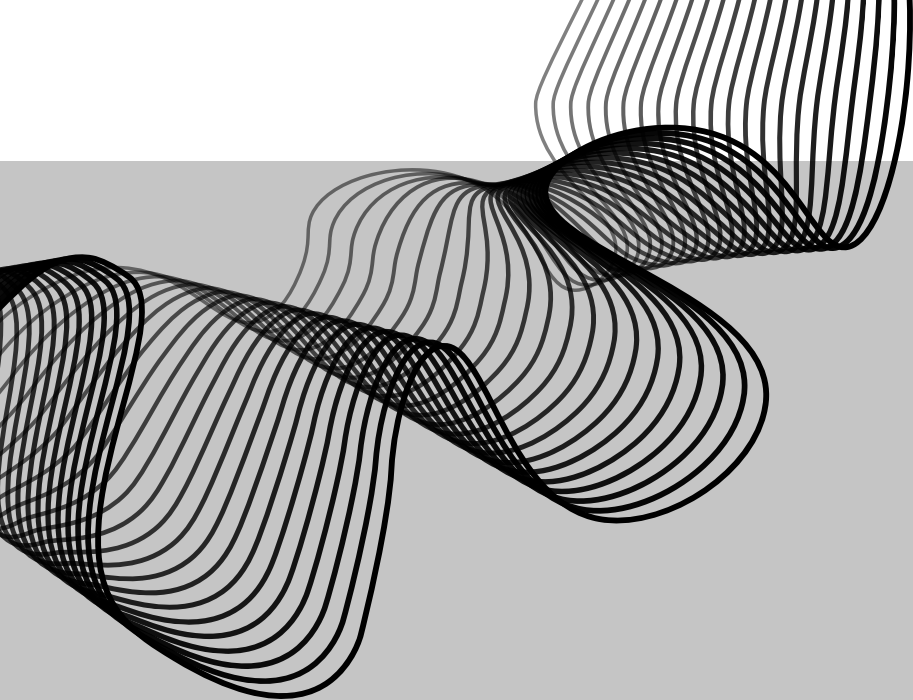
Aircraft operations at other airports – Similarly, aircraft operating procedures, runway use and flight paths at other airports are outside the scope of the Noise Sharing Plan and are governed by separate regulatory and operational frameworks.

Management of on-ground noise – Noise generated by ground-based activities, such as aircraft taxiing, engine run-ups or airport ground operations, is not addressed within the draft Noise Sharing Plan. These matters are managed through separate airport environmental and operational controls.

Understanding the effects of noise – The Noise Sharing Plan does not assess the health or social impacts of aircraft noise. These effects are being considered as part of the Community Health Study, which is a requirement of the conditions of approval for the third runway, as outlined in Section 5.4.

Aircraft emissions – The draft Noise Sharing Plan does not consider the impact of increased aircraft emissions that may result from additional track miles flown under proposed runway modes and arrival and departure procedures.





2

Approach, stakeholders and timing

2. Approach, stakeholders and timing

The draft Noise Sharing Plan is built on coordinated delivery across a complex stakeholder environment

- Development has aligned technical, regulatory and community priorities through a staged process
- Ongoing engagement is critical to maintaining trust and refining outcomes through to implementation, circa 2031

This section outlines the roles and responsibilities for the development and delivery of the Noise Sharing Plan, together with the key stages in its preparation. The draft Noise Sharing Plan has been developed within a defined statutory and regulatory framework that requires independence, transparency and compliance with project approval conditions.

2.1 Roles and responsibilities

Clear delineation of roles ensures the draft Noise Sharing Plan is technically robust, informed by community and stakeholder input, and capable of being safely and operationally implemented.

Trax and GHD	Independent consultants responsible for developing the Noise Sharing Plan and leading the community and stakeholder engagement to support diverse views being heard and captured in the development of noise sharing options. Trax is also developing and evaluating the technical airspace design and operating strategies and leading the engagement with industry stakeholders.
Melbourne Airport	While Melbourne Airport leads the overall third runway project, its role in the Noise Sharing Plan is to be facilitative due to the independence required as part of the project's conditions of approval. Melbourne Airport is responsible for ensuring the Noise Sharing Plan is prepared in accordance with the Ministerial approval conditions attached to the Third Runway MDP.
Airservices Australia	Airservices Australia is responsible for managing Australian airspace and will ultimately implement the airspace and flight path changes proposed in the Noise Sharing Plan. Airservices Australia has provided advice and information to inform the draft Noise Sharing Plan. It will be responsible for simulating the flight paths and modes contained within this Noise Sharing Plan to make sure they are safe, operationally feasible, and to verify the potential use of each. Airservices will review and endorse the Noise Sharing Plan prior to it being submitted for review and approval.
Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts (DITRDCA)	The Department administers the Airports Act 1996 and associated regulations and will ensure Melbourne Airport is complying with the approval conditions for the Melbourne Airport Third Runway MDP. It also approved the schedule for preparing the Noise Sharing Plan in March 2025 and participates in Noise Sharing Plan governance committees. The Minister for Infrastructure, Transport, Regional Development and Local Government (or a person authorised by the Minister) must provide written approval of the final version of the Noise Sharing Plan as endorsed by Airservices Australia. The Department provides advice to the Minister as required.
Civil Aviation Safety Authority (CASA)	CASA is the regulator responsible for the administration of airspace under the Airspace Act 2007. CASA will provide general project oversight of deliverables and progress. CASA's role is regulatory and independent, with final authority over whether the proposed changes can be implemented.
Stakeholders and community	Provide feedback and advice to inform the Noise Sharing Plan that is most appropriate for the Melbourne context.

2.2 Process for developing the Noise Sharing Plan

Figure 2.1 outlines the key stages in the development of the Noise Sharing Plan, from the early identification of the third runway as part of Melbourne Airport's long term planning through to the planned commencement of operations. It shows how the Noise Sharing Plan has been developed alongside statutory planning processes, structured consultation phases and technical assessment.

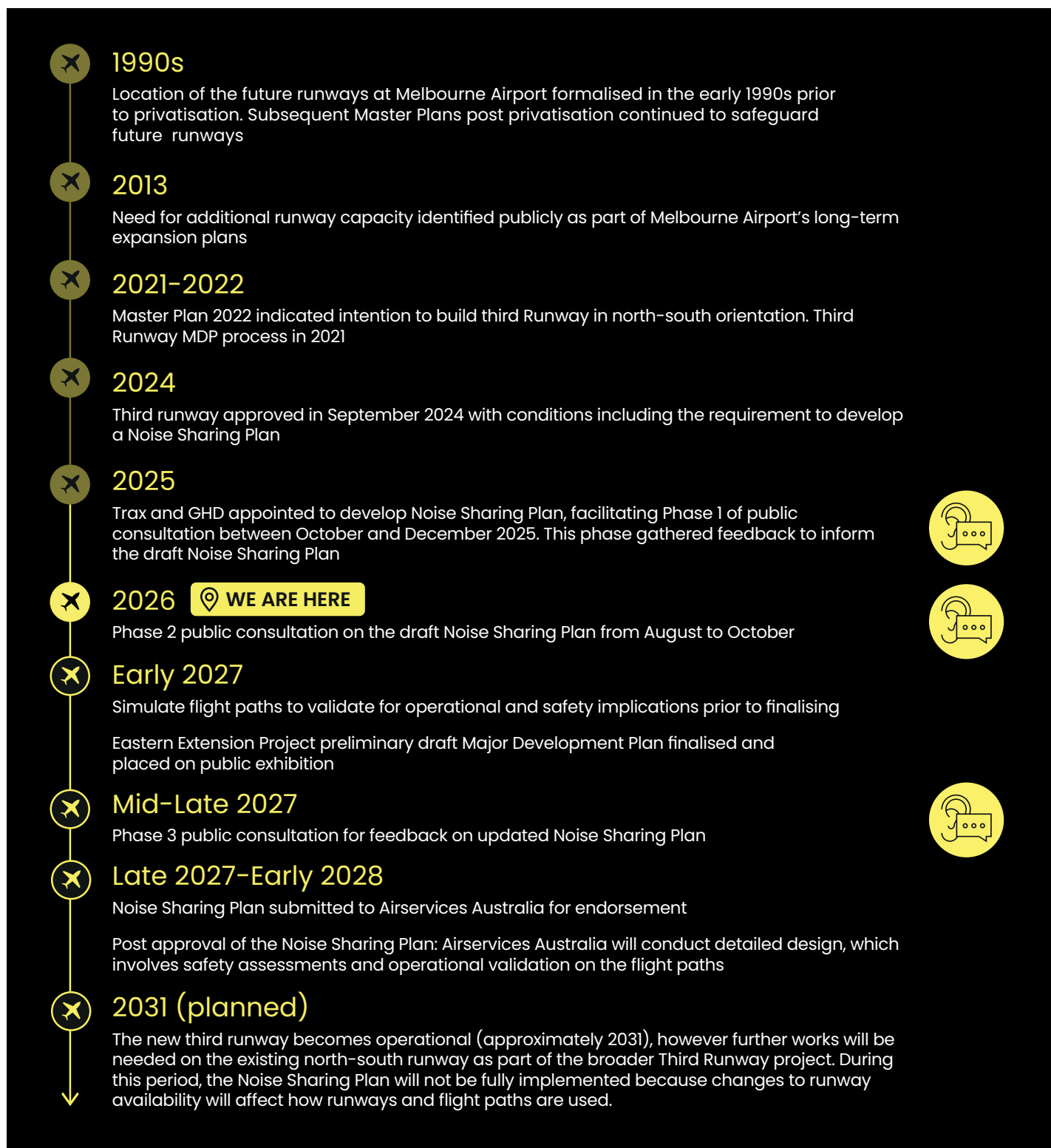
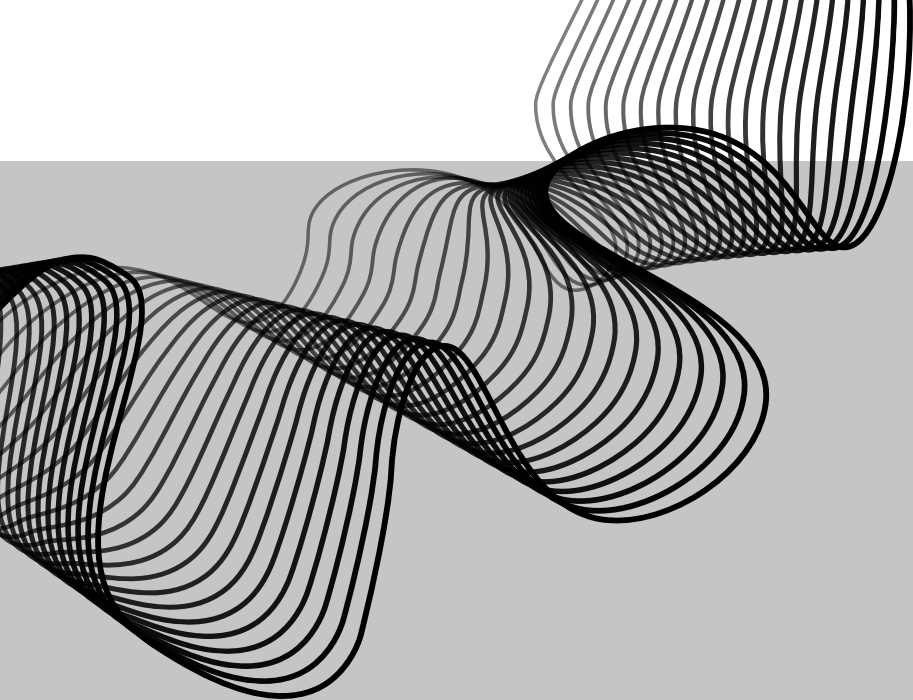


Figure 2.1 Timeline and process for developing the Noise Sharing Plan





3

**Feedback that
informed this draft
Noise Sharing Plan**

3. Feedback that informed this draft Noise Sharing Plan

- Community consultation highlighted expectations of fairness, transparency and respite
- Stakeholders are seeking clearer distribution of impacts and visible accountability
- The draft Noise Sharing Plan directly embeds these priorities into its design

To inform this draft of the Noise Sharing Plan, feedback was sought from communities across Melbourne and aviation industry stakeholders between October 2025 and December 2025. Over 574 online surveys* were completed, and the project team spoke to over 500 community members and aviation stakeholders across 24 in-person community sessions and webinars, and 14 aviation stakeholder sessions held during the engagement period.

To inform the Noise Sharing Plan, feedback on the following topics was sought from the community:

- Level of awareness of the Noise Sharing Plan project
- Principles that should be prioritised for the draft Noise Sharing Plan
- Preference for rotation of runway modes (and associated flight paths) to help share noise across Melbourne
- Preference for the timing of respite periods to provide breaks from continuous aircraft noise
- What topics required further information and explanation in the draft Noise Sharing Plan.

Aviation industry stakeholders were also consulted on their current and future operational requirements to inform the development of airspace design and flight path concepts. This is covered in Section 3.2.

* A copy of the survey is provided in Appendix A.

ENGAGEMENT SNAPSHOT



Total sessions held

24

community sessions

14

stakeholder sessions



551

participants engaged



574

Noise Sharing Plan online survey submissions



3.1 Community feedback

Table 3.1 summarises key themes raised through community engagement and explains how this feedback has been considered in the development of this draft Noise Sharing Plan. It demonstrates the link between what was heard from the community and the resulting design principles, runway use approaches and mitigation measures included in the draft Noise Sharing Plan, providing transparency about how community input has informed decision making.



Look for this symbol to see where feedback has been considered in the draft Noise Sharing Plan

Table 3.1 Summary of community feedback and how it has been addressed

What we heard	How it has been considered in the Noise Sharing Plan
Two principles were a top priority: - Alternating between runways to share noise - Demonstrating how community concerns are considered	These two principles have been embedded into the draft Noise Sharing Plan principles outlined in Section 1.1, ensuring community values and priorities informed the overall approach. For example, the Noise Sharing Plan specifically identifies alternation between segregated runway modes outside of peak periods. This is intended to avoid noise being concentrated continuously over the same communities. The Noise Sharing Plan suggests that during off-peak times, each segregated mode will generally be used for no more than four hours at a time, when operationally feasible. This means aircraft noise would be shared more evenly across communities, rather than affecting one area continuously. This section of the Noise Sharing Plan also outlines how community concerns have been considered and incorporated. Instances where community input has influenced decision making are clearly identified throughout the relevant sections of this draft Noise Sharing Plan.
The majority of participants are aware of the project, however understanding of the project varies	The first round of engagement aimed to build awareness of the Noise Sharing Plan project to seek initial feedback to inform this draft Noise Sharing Plan. For the next round of consultation, we have also expanded our communication and engagement activities, including: - development of plain language videos explaining noise sharing concepts - broader promotion of the project and engagement opportunities - additional delivery of community webinars and drop in sessions across Melbourne where people can learn more about the project and provide feedback in person.
Preference for alternating runway use to provide regular periods of respite	Feedback received during consultation was a primary driver in shaping the proposed approach to segregated runway modes. Many community members expressed a preference for rotation throughout the day, rather than concentration at specific times. In Section 8.2 of this draft Noise Sharing Plan, it is suggested that segregated runway modes are alternated outside of high demand periods to avoid noise being concentrated over the same communities for long periods. A maximum time of 4-hours is also suggested for use of any segregated operating mode ‘outside of high demand periods’, to support regular respite periods.

What we heard	How it has been considered in the Noise Sharing Plan
Respite from aircraft noise is preferred at night, particularly during sleeping hours.	Feedback informed a revised night time runway priority. This Plan considers the use of runway operating modes at night that avoid aircraft continually flying over densely populated areas to the south of Melbourne Airport. It also suggests that the existing cross runways continue to be used to distribute noise more broadly and further reduce impacts to areas with dense population.
There is a strong interest in learning how flight paths are designed and decisions are made.	This draft Noise Sharing Plan provides insight into factors that have informed flight path design including safety, operational efficiency and capacity. These factors are considered alongside community and aviation stakeholder feedback. In addition, members of the public are invited to attend webinars during the next round of consultation between August and October 2026 to hear directly from flight path designers, with registrations available via Melbourne Airport's Major Projects Hub.
People would like a clear understanding of noise impacts they should expect.	This draft Noise Sharing Plan breaks down changes to flight paths by geographic area around Melbourne Airport so people can see what will change in their area. To further support transparency, an online Noise Tool is available on the Melbourne Airport Major Project's Hub website, allowing people to enter their address to further understand potential noise outcomes when the third runway is operational in 2031 and beyond. Members of the public are also invited to attend drop-in sessions around Melbourne to ask questions and understand what is changing in their area. See the Major Projects Hub to find out more.

3.2 Aviation industry feedback

Industry engagement for the Noise Sharing Plan was conducted between September and December 2025. Industry stakeholders engaged are shown in Table 3.3. This included targeted briefing sessions, including airport user group meetings, airline advisory forums, online webinars and in-person operator sessions, as well as industry safety forums. The engagement was deliberately designed to combine broader awareness-raising forums with smaller, focused sessions, ensuring that both basin-wide issues and detailed operational concerns could be captured.

To support the engagement, dedicated materials were made available through the Melbourne Airport Major Projects Hub website. Industry-specific content was also published through the CASA Aviation State Engagement Forum (AVSEF) in two publications: AVSEF #1 (16 October 2025), which covered proposed runway operating modes, high-level indicative flight paths and operational interactions between Melbourne Airport and Essendon Fields Airport; and AVSEF #2 (27 November 2025), which focused on general aviation operations and proposed airspace changes affecting the broader Melbourne Basin.

Engagement materials covered runway modes and operational strategies, Standard Instrument Departures (SIDs) and Standard Instrument Arrivals (STARs), airspace classifications and sectorisation, and the integration of noise sharing and respite options into operational planning.

The four key themes that emerged from the Phase 1 industry engagement include:

- airspace access and safety
- operational efficiency and training
- emergency and critical operations
- stakeholder engagement and transparency.

Table 3.3 provides detail on the feedback received across these themes and how it has directly informed the development of this draft Noise Sharing Plan, with specific design changes made in response to industry input.

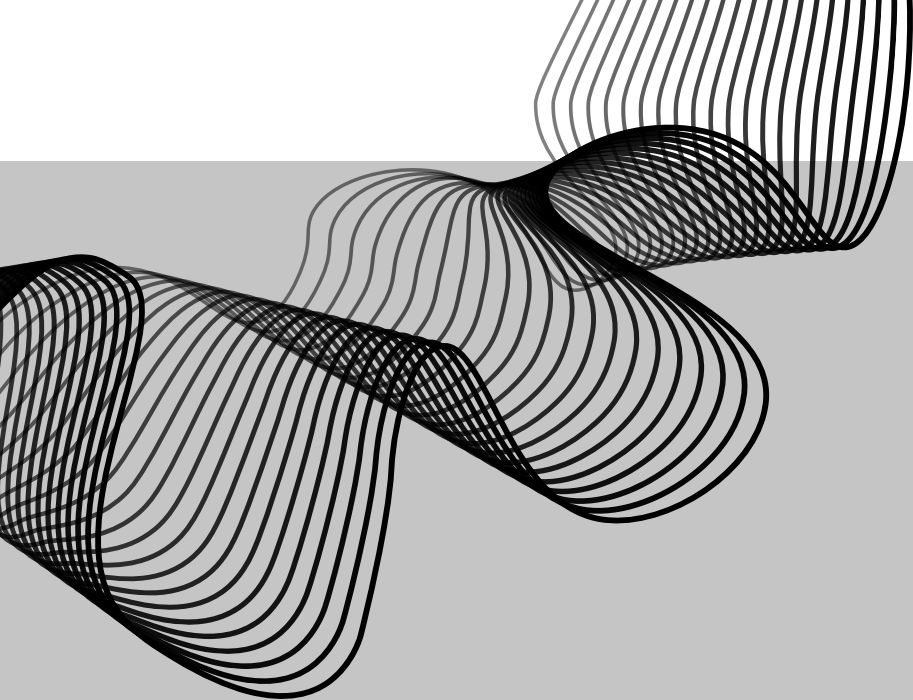
Feedback received during Phase 2 engagement will be reviewed, documented and assessed as part of the ongoing development of the Noise Sharing Plan. Input from stakeholders will be analysed to identify common themes, key concerns, opportunities and areas requiring further investigation. Where appropriate, feedback will be used to refine proposed operating concepts, noise sharing principles, assessment criteria and implementation considerations.

Table 3.2 Aviation stakeholder groups who provided input into the draft Noise Sharing Plan

Stakeholder group	Meetings (#)
Airlines and commercial aviation operators	12
Airport user groups, safety committees and operator distribution lists	6
Airport, aerodrome and airfield operators or owners	11
Aviation associations and representative bodies	7
Aviation service providers and technical organisations	1
Business and industry groups	1
Flight training, education and aero clubs	10
Government, Defence and emergency services	5
Recreational, sport and specialist aviation users	7

Table 3.3 Summary of aviation industry feedback and how it has been addressed

What we heard	How it has been considered in the Noise Sharing Plan
Interest in understanding potential impacts on operations, including safety, efficiency and training	Safety has been the primary design criteria throughout the development of the draft Noise Sharing Plan. Airspace and flight path designs have been refined to maintain safe aircraft separation, manageable controller and pilot workload, and efficient traffic flows. Specific changes have been made to airspace in the north and south of the Melbourne Basin to preserve access for training and recreational flying operators. Where practicable, flight paths have been designed to support operational efficiency and training needs, including retaining VFR access routes and minimising impacts on circuit operations. The draft Noise Sharing Plan explicitly recognises that airspace design can affect access for all airspace users, and these impacts have been carefully considered and balanced against safety and capacity requirements at each stage of the design process.
Emergency and other time critical operations should continue to receive priority access	Priority access for emergency and time-critical operations is embedded throughout the draft Noise Sharing Plan framework. Essendon Fields Airport (YMEN) is recognised as a key hub for emergency services aviation and airspace arrangements have been specifically structured to preserve efficient, predictable access for medical, law enforcement and other emergency response operations. Current operating procedures include specific provisions to ensure that runway mode changes do not delay or disrupt time-sensitive missions. This includes defined priority routing and contingency arrangements designed to maintain the reliability of emergency aviation services regardless of the active runway configuration. The implementation of the Noise Sharing Plan will not change this provision.
Understanding how new airspace and flight path designs could impact day-to-day operations is important, as well as understanding how changes might interact with current flight paths in the Melbourne Basin	The aviation industry was engaged during early operations planning to understand operational needs and dependencies across the Melbourne Basin, including Essendon Fields, Moorabbin, Point Cook and Avalon airports, as well as a large number of general aviation aerodromes and private airstrips. Flight paths and airspace have been designed to minimise impacts on day-to-day operations wherever safety and capacity allow. Given Essendon Fields Airport's close proximity and strong operational interdependence with Melbourne Airport, detailed compatibility assessments have been undertaken for each runway mode, with additional consideration of impacts on Moorabbin's training operations and future advanced air mobility, Point Cook's training activities and Avalon's commercial services. Section 5 of the draft Noise Sharing Plan documents these assessments and the operational adjustments required.
There is uncertainty around how flight path changes might affect general aviation stakeholders' access to local airspace, including availability of transit routes and potential implications for training, recreational flying and regional flights	Feedback from general aviation, training and recreational flying operators has directly informed airspace refinements to the draft Noise Sharing Plan's concept. The impact on recreational and training flights will continue to be refined as the airspace and flight path design progresses. All proposed flight path changes have been communicated through the public consultation process, and the rationale for each change has been clearly documented. The Noise Sharing Plan will continue to focus on refining the airspace concept in a way that balances runway efficiency, safety, general aviation access and operational resilience across the wider Melbourne Basin.



4

Melbourne Airport operations

4. Melbourne Airport operations

New runway capacity creates flexibility, but does not remove operational constraints

- Additional operating modes enable more active management of noise distribution
- Safety and efficiency remain the priority, requiring trade-offs in how noise sharing is applied

Two intersecting runways are currently operated at Melbourne Airport. The new parallel north-south runway introduces additional capability and complexity for aircraft operations, enabling new modes of operation not available in the current environment.

Understanding how airport operations will change with the introduction of the third runway requires an understanding of both runway naming conventions and how runways may be used.



WHEN DEMAND IS LOW

More options to share noise, when safe and conditions allow.



WHEN DEMAND IS HIGH

High capacity operating modes are prioritised to keep flights moving while sharing noise where possible.

4.1 How noise sharing can work

Noise sharing can work by using different runway operating modes at different times, where this is safe, practical and consistent with air traffic management requirements. Rather than relying on one operating mode for most or all aircraft movements, Air Traffic Control may alternate between available modes so that the pattern of aircraft noise shifts over time. This means that the same communities are not exposed to the same level of aircraft noise at all times, and that different areas may experience periods of reduced activity or respite.

This approach operates during periods of lower demand when there is greater flexibility to vary runway use. In practice, noise sharing may involve rotating runway modes at certain times of day, on different days of the week, or over longer periods such as weeks or months. It is not possible to remove aircraft noise altogether, but the draft Noise Sharing Plan aims to distribute it across affected communities and provide more regular periods of relief, where operationally feasible.

How noise sharing can be applied in practice will depend on a range of factors, including safety requirements, the volume and timing of aircraft movements, weather conditions and runway availability, and broader airspace and air traffic management arrangements. For this reason, any proposed approach to noise sharing would need to be carefully assessed to determine when mode alternation is possible and what level of relief or redistribution it may realistically provide.

The way in which runways are utilised at airports depends on multiple factors including runway configuration, airspace design and the navigational aids available for approach and departure. While operations are relatively straight-forward for airports with single runways, those with multiple runways can involve quite complex and interdependent operations.

Runway operating modes

Operations at airports with multiple runways may include:



Single runway operations – the use of only one runway in a single direction



Parallel runway operations – the concurrent use of two or more parallel runways in the same direction, with approaches and departures on either or all parallel runways depending on local procedures, traffic demand and weather conditions



Cross runway operations – the concurrent use of two or more runways in crossing directions, again with approaches and departures on either or all runways depending on local procedures, traffic demand and weather conditions.



Segregated runway operations – assigns each parallel runway a single function, one for arrivals, one for departures rather than mixing both. Runways can alternate roles on a scheduled basis, spreading arrival and departure noise across different communities over time rather than concentrating it on one area.



Simultaneous opposite direction parallel runway operations (SODPROPS) – the concurrent use of two parallel runways with aircraft operating in opposite directions. This operating mode is used in specific weather and operational conditions, allowing different aircraft types to operate safely and efficiently.

The combination of runways in use at any given time, along with their assigned roles for arrivals and departures, defines the 'runway operating mode'.

During the development of the draft Noise Sharing Plan, feedback was sought from stakeholders and the community on 14 proposed runway operating modes. These modes comprised:

- The three existing cross runway operating modes
- The four existing single runway operating modes
- The seven runway operating modes defined in the Third Runway MDP, including:
 - Mixed mode operations
 - Segregated mode operations
 - Simultaneous Opposite Direction Parallel Runway Operations (SODPROPS).

This section explains the runway operating modes available at Melbourne Airport including the modes that form the current priority arrangement, as well as the new configurations introduced in this draft Noise Sharing Plan for the new parallel runway. For each mode, the assigned runway or runways for arrivals and departures have been identified. Essendon Fields complementary modes are described separately at the end of this section.

4.2 Key definitions

Some key definitions used throughout the Design section are outlined below to support a consistent understanding of airspace structure and flight path design. These definitions provide a common reference point for interpreting the technical concepts presented and ensure clarity in how operational, environmental and community considerations are described and assessed throughout the document.

Airspace	Airspace provides the structured environment within which aircraft operate. It defines where aircraft can fly, the level of air traffic control service provided and the separation standards that apply. The design of airspace is closely linked to runway operations and flight paths. It must support the safe and efficient management of arriving and departing aircraft, including sequencing, separation and integration with other users of the airspace. Changes to runway modes or flight path design can require corresponding changes to controlled airspace boundaries, classification or operating procedures. Airspace design also influences access for other users, including General Aviation, and plays an important role in balancing operational requirements with broader aviation system needs.
Flight Paths	Flight paths are defined three-dimensional routes that aircraft follow during arrival and departure. While these are typically represented as single lines, in practice aircraft do not follow an identical track. Variations in aircraft performance, weight, wind conditions and speed result in aircraft operating within a corridor rather than along a single precise path. These corridors can range from narrow to several kilometres wide.
Standard Instrument Arrival (STAR)	A Standard Instrument Arrival is a predefined route that aircraft follow from the enroute phase through to the initial stages of approach. STARs are designed to ensure safe and efficient sequencing of arriving aircraft, maintaining separation from terrain, obstacles and other traffic. As with departures, STAR design seeks to balance operational efficiency with environmental considerations, including noise distribution.
Standard Instrument Departures (SIDs)	A Standard Instrument Departure is a predefined route that aircraft follow after take-off through to the enroute phase of flight. SIDs are designed to provide safe vertical and lateral separation from terrain, obstacles and other aircraft. Where possible, they also consider environmental outcomes, including noise and emissions, alongside airspace management requirements.

4.3 Tactical management of aircraft

While the flight paths shown in this document represent the standard routes that aircraft departing and arriving are designed to follow, not all aircraft will operate precisely on these paths. Air traffic controllers are responsible for maintaining the safe and efficient flow of aircraft and may provide individual instructions, known as radar vectors, that direct an aircraft along a customised route rather than the published procedure.

For departing aircraft, radar vectoring is most commonly used for smaller, non-jet aircraft, which have different performance characteristics to jet aircraft and may require tailored instructions to integrate safely with other traffic. For arriving aircraft, controllers may provide radar vectors to establish appropriate spacing between aircraft before landing, ensuring safe and orderly operations.

As a result, some aircraft may be observed tracking slightly differently from the flight paths shown. This is a normal and expected part of air traffic management and reflects the dynamic nature of airport operations rather than a change to the underlying flight path design.

4.4 Forecast usage ranges

The forecast usage ranges for each runway mode provide an indication of how the proposed operating modes may be used when the third runway is implemented. They are based on current design assumptions and take into account future airport infrastructure developments identified in the Melbourne Airport Master Plan.

Forecasts in the following sections are based on early operational modelling, forecast traffic demand, and a range of planning assumptions that are appropriate for concept development but have not yet been fully validated through detailed simulation, air traffic management assessments, operational trials, and stakeholder review.

Accordingly, these forecast percentages should not be interpreted as future operational targets or performance measures for reporting purposes. Establishing reporting targets prior to completion of the detailed design and validation process would be premature and may not accurately reflect the operational constraints, safety considerations, weather variability, or air traffic management requirements that ultimately influence runway mode selection. Any future reporting framework will be developed once the final operating concept has been validated and will be based on operationally achievable outcomes that balance efficiency, capacity, and noise sharing objectives.

As the project progresses and further technical work is undertaken, these assumptions are expected to be refined which may result in changes. The forecast usage numbers will be considered final once the Noise Sharing Plan is approved.

4.5 Existing runway modes at Melbourne Airport

The eight existing modes detailed below represent the approved runway configurations currently available for operations at Melbourne Airport. These modes form the baseline against which the draft Noise Sharing Plan changes are assessed. Although all eight runway modes are available for operations, Airservices Australia's Noise Abatement Procedures nominate preferred runway modes for use when winds and weather conditions allow. Preferred runways for arrivals and departures vary depending on time of day or night as well as with demand (i.e. the number of arriving and departing aircraft).

In the diagrams, the following legend applies:

-  arriving aircraft
-  departing aircraft
-  larger aircraft requiring the longer runway (either arrivals or departures)

In the descriptions and accompanying diagrams, the existing north/south runway is referred to as Runway 16L/34R, with the new Third Runway (Runway 16R/34L) shown for context.

Capacity refers to the maximum number of aircraft movements that can be accommodated by an airport, runway mode or runway over a given period (usually expressed hourly) while maintaining safe and efficient operations. For the purposes of the following tables, capacity is categorised into three groups:

- Low: 20–50 movements an hour
- Medium: 50–60 movements an hour
- High: 60+ movements an hour.

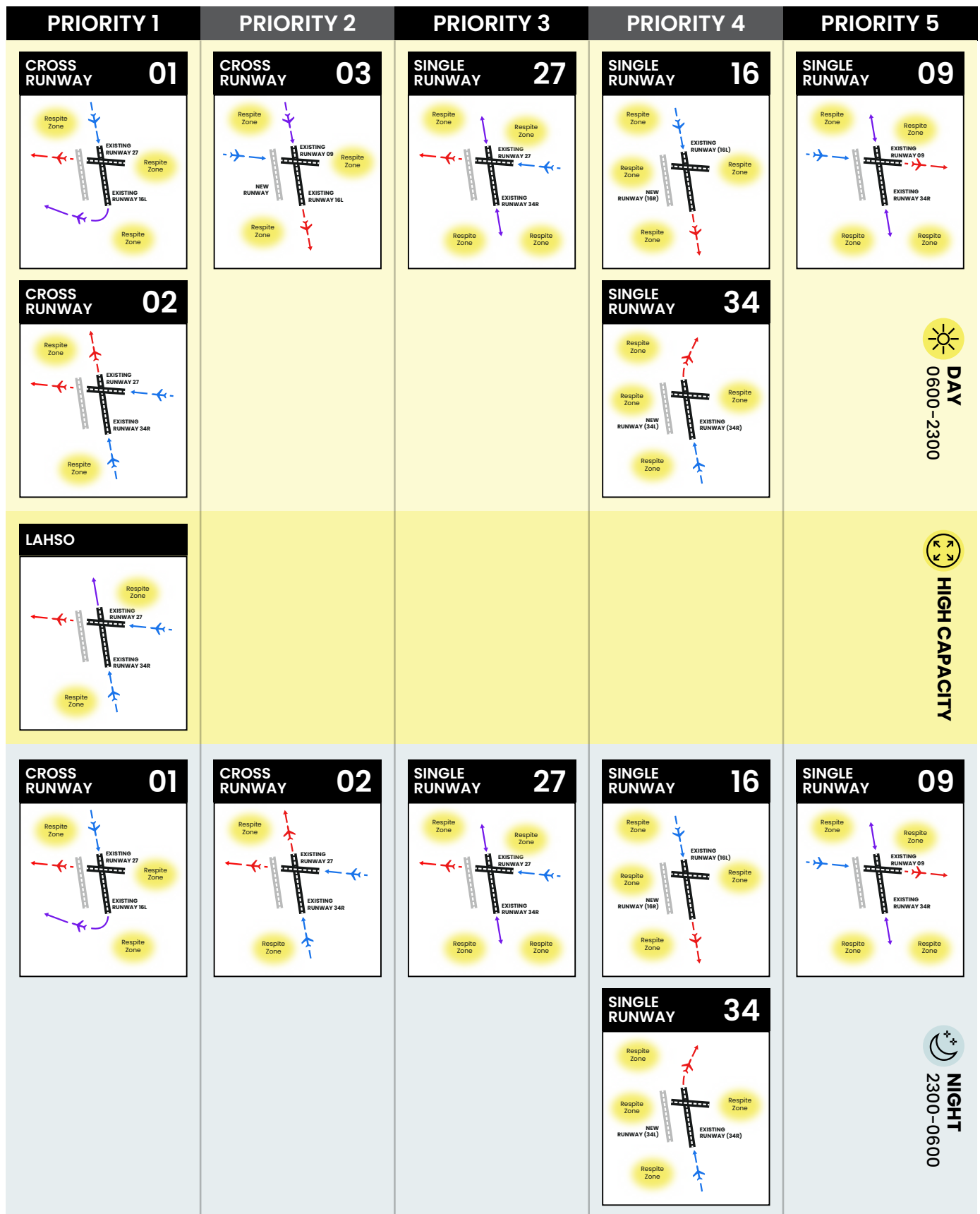
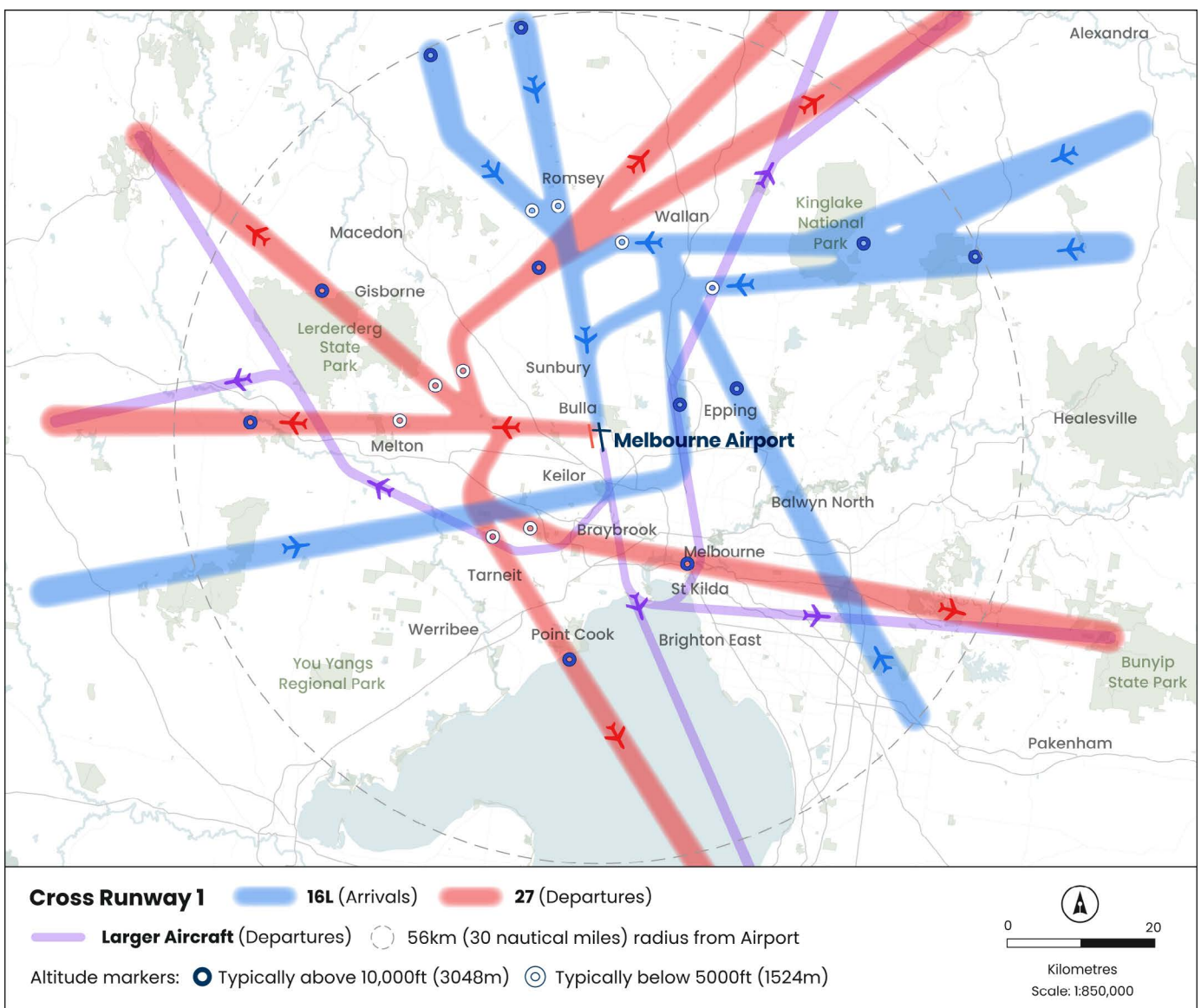
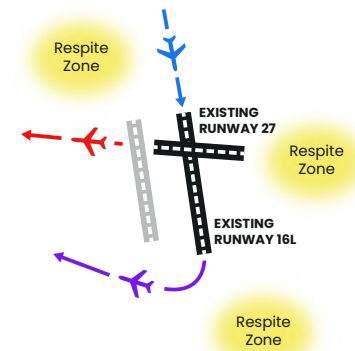


Figure 4.2 Existing runway modes by priority

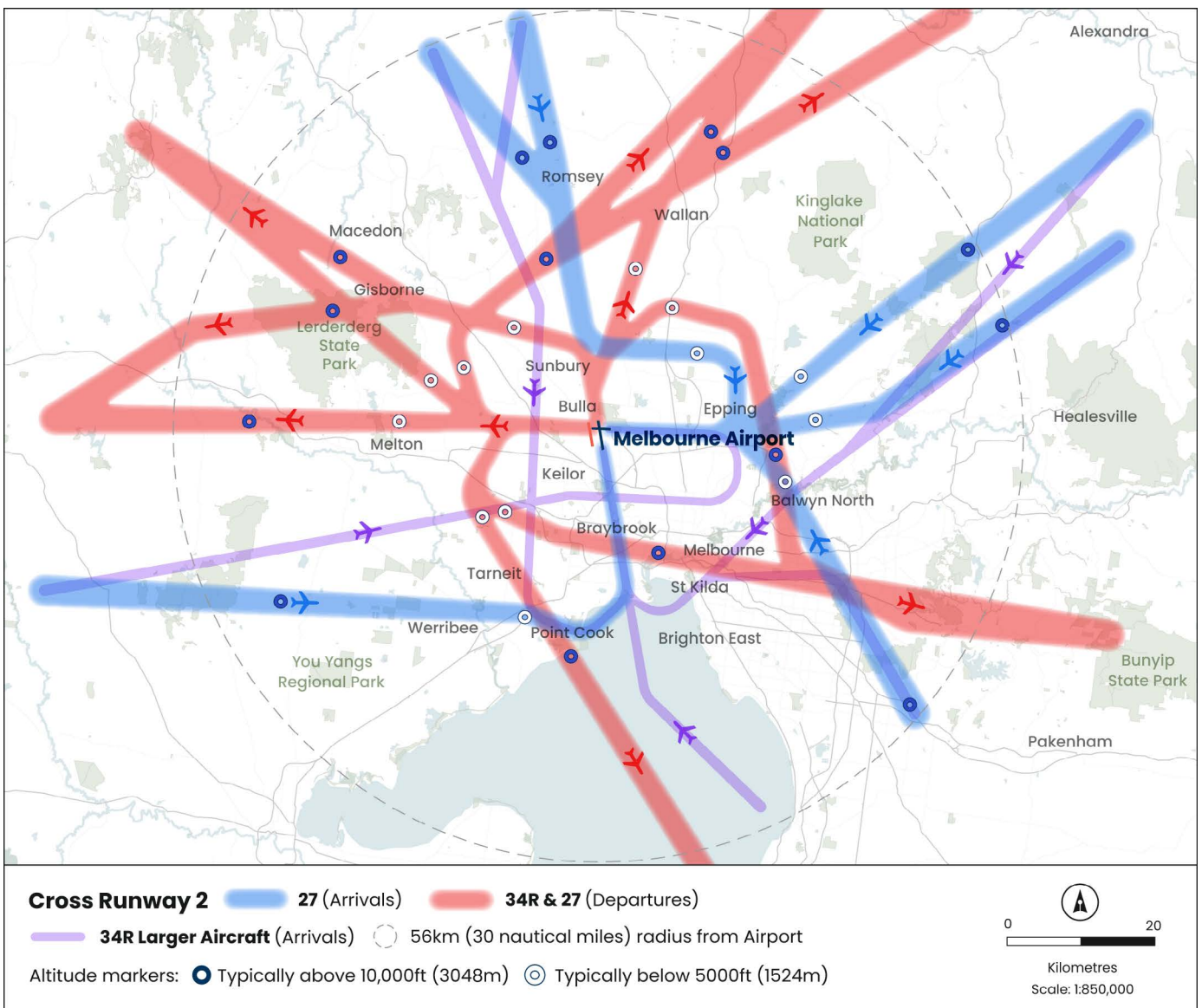
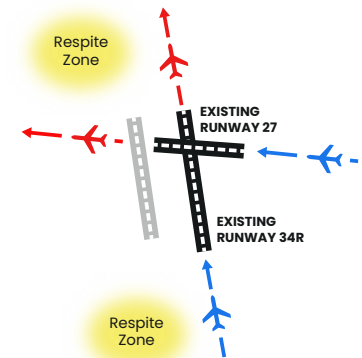
Cross Runway 1

Runways	 Arrivals 16L	 Departures 27 and 16L		
Weather	 South westerly or calm			
Timing	 Available 24 hours			
Special conditions	Larger aircraft may require the long runway and depart to the south off 16L			
Capacity	Medium			
Forecast usage range (% of time)	2025 38.7%	Implementation 24-38%	+5 years 16-25%	2047 9-15%



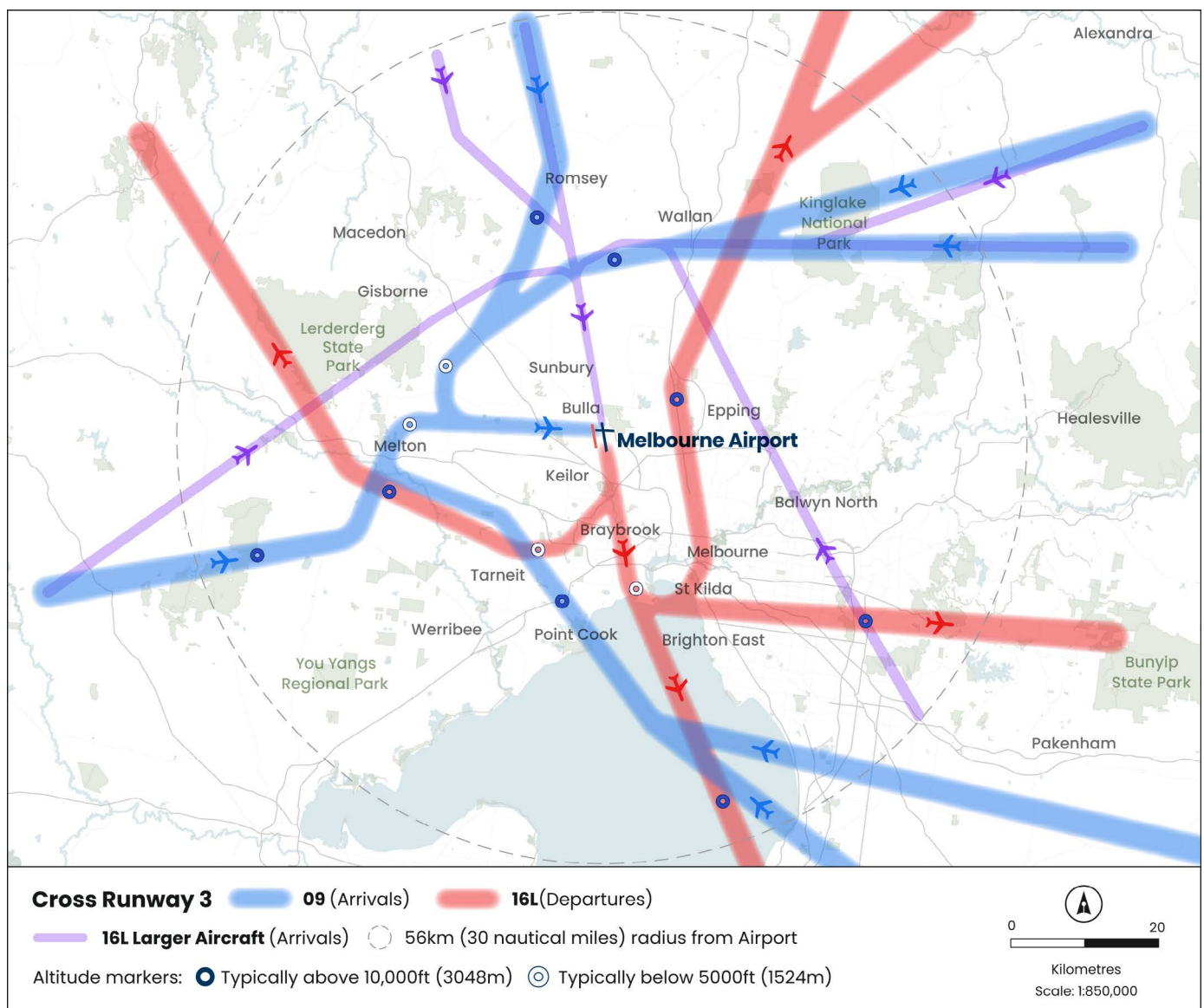
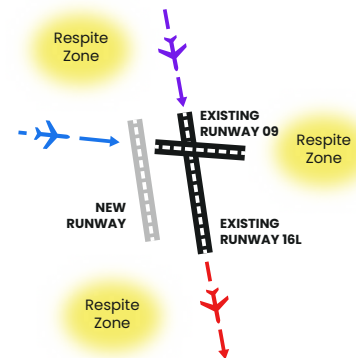
Cross Runway 2

Runways	 Arrivals 27 and 34R  Departures 27 and 34R
Weather	 North westerly or calm
Timing	 Available 24 hours
Special conditions	Larger aircraft may require the longer Runway 34R for arrival
Capacity	Medium
Forecast usage range (% of time)	2025 17.6% Implementation 13-20% +5 years 10-16% 2047 9-15%



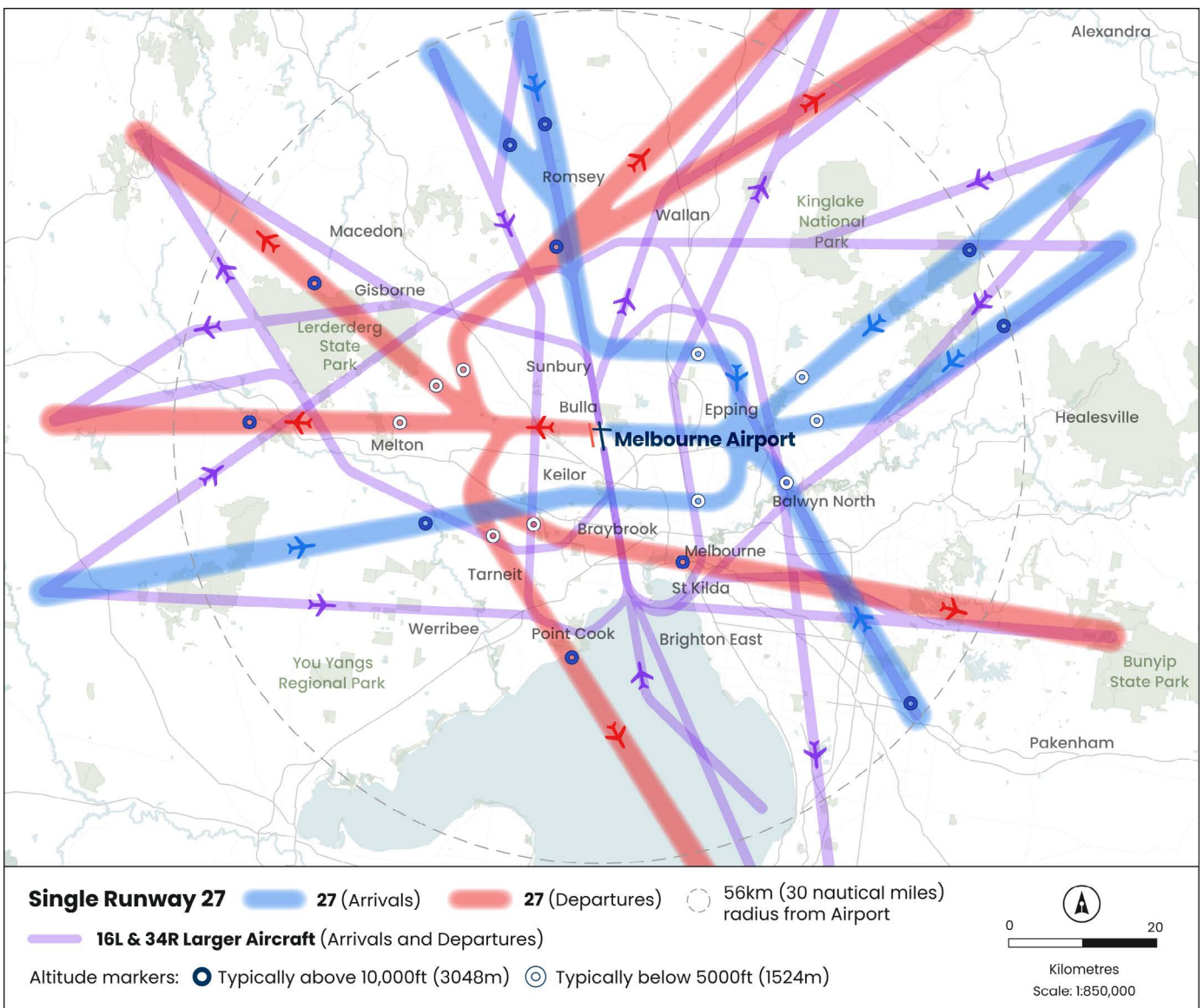
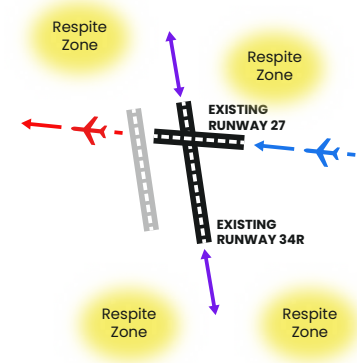
Cross Runway 3

Runways	 Arrivals 09 and 16L	 Departures 16L		
Weather	 South easterly wind			
Timing	 Day use 6am–11pm			
Special conditions	Larger aircraft may require the longer runway 16L for arrival			
Capacity	Medium			
Forecast usage range (% of time)	2025 1.1%	Implementation 2–4%	+5 years 1–2%	2047 <1%



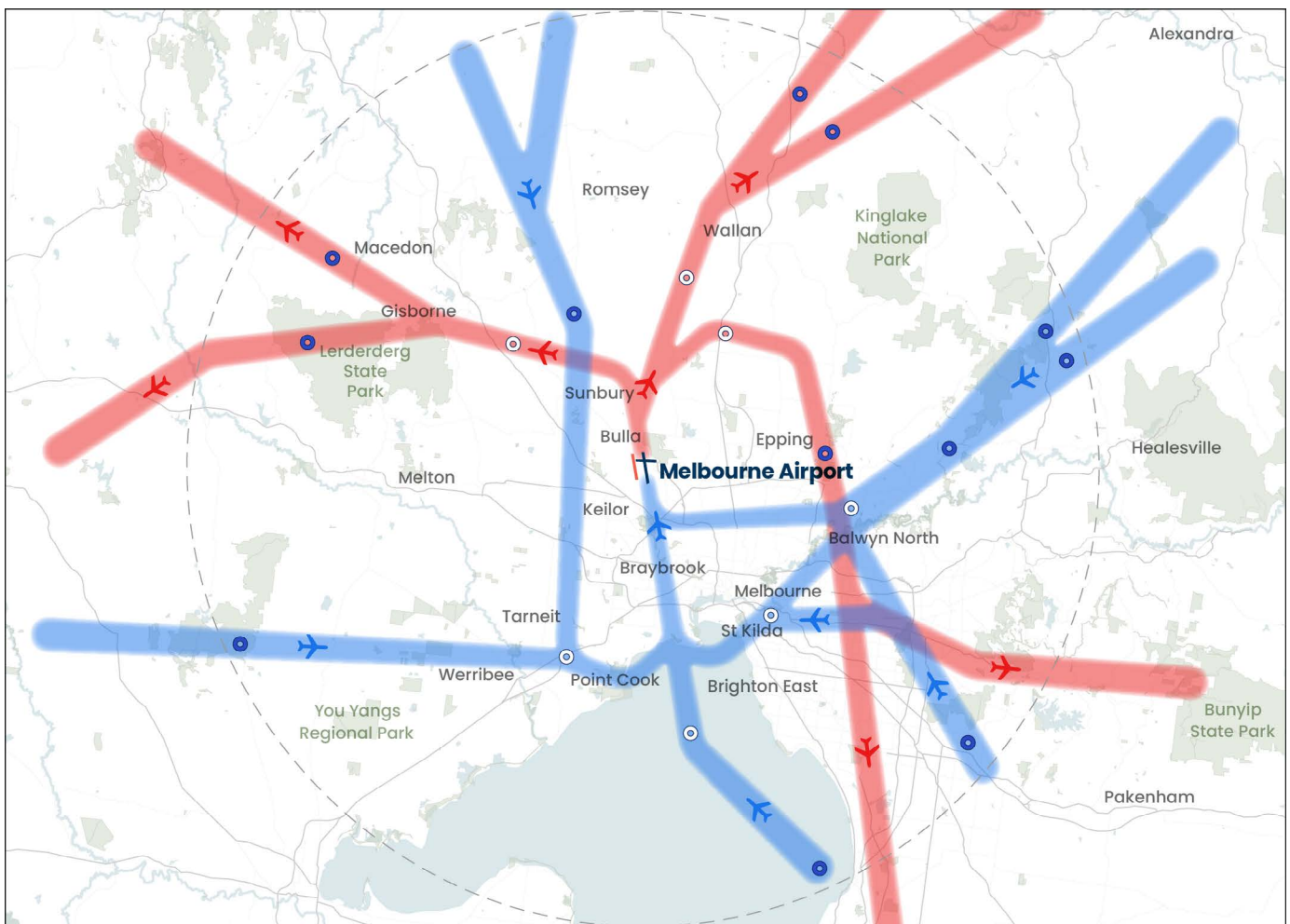
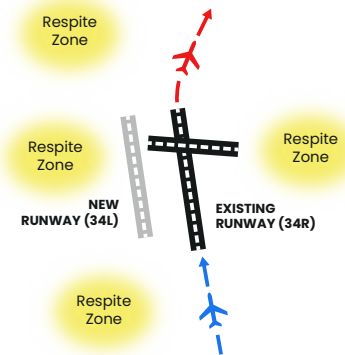
Single Runway 27

Runways	 Arrivals 27	 Departures 27		
Weather	 Westerly wind			
Timing	 Available 24 hours			
Special conditions	Larger aircraft may require the longer Runway 34R/16L for arrival or departure			
Capacity	Low			
Forecast usage range (% of time)	2025 6.1%	Implementation 2-4%	+5 years 2-4%	2047 1-3%



Single Runway 34

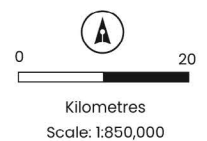
Runways	 Arrivals 34R	 Departures 34R		
Weather	 Northerly wind			
Timing	 Available 24 hours			
Special conditions	N/A			
Capacity	Low			
Forecast usage range (% of time)	2025 17.6%	Implementation 2-4%	+5 years 2-4%	2047 2-4%



Single Runway 34

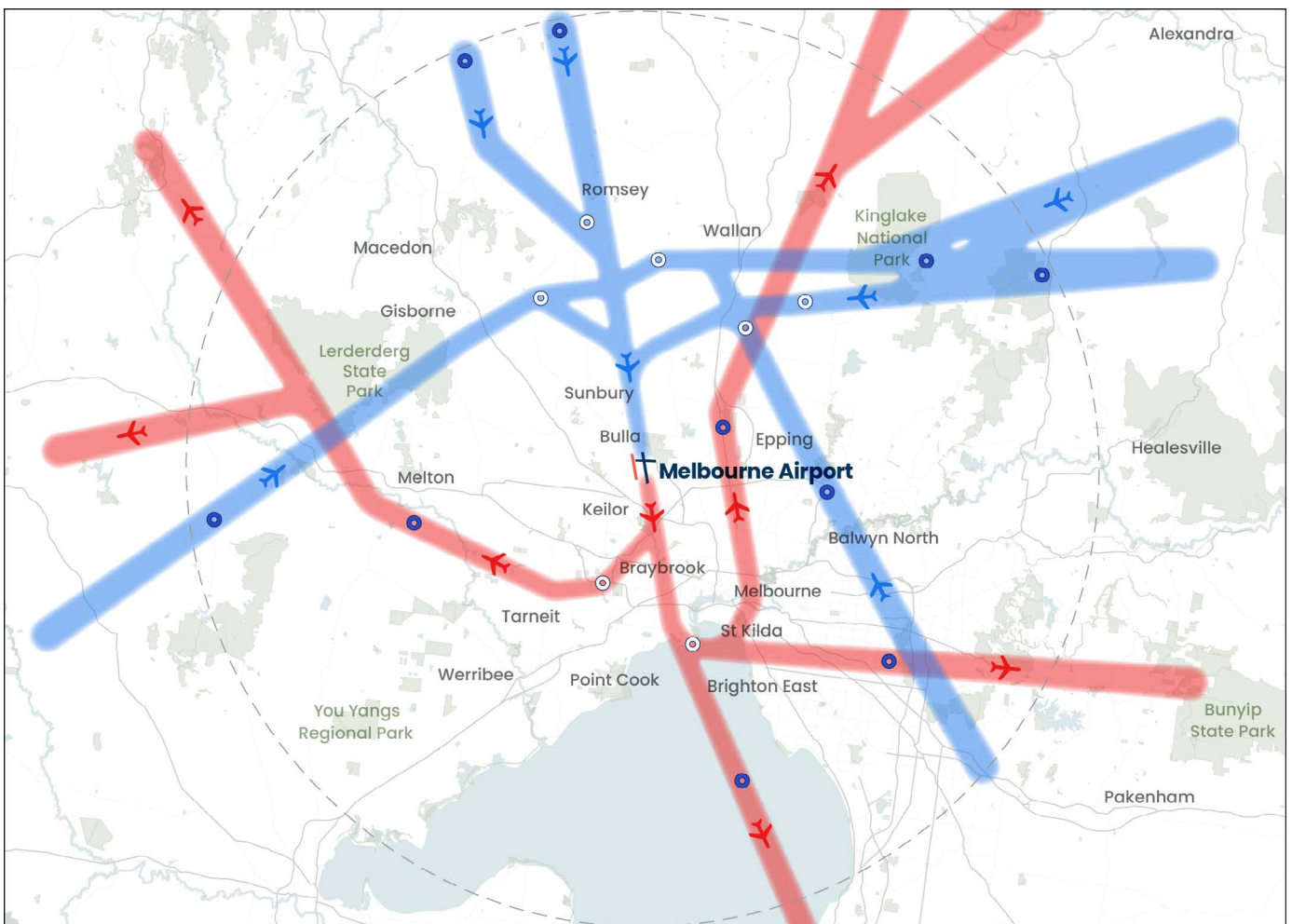
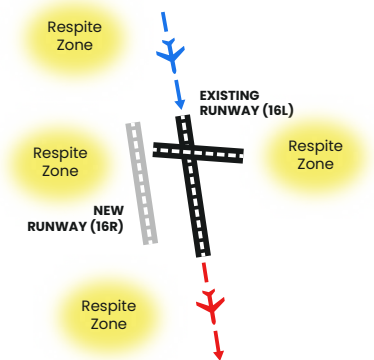
 34R (Arrivals)  34R (Departures)  56km (30 nautical miles) radius from Airport

Altitude markers:  Typically above 10,000ft (3048m)  Typically below 5000ft (1524m)



Single Runway 16

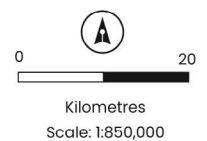
Runways	 Arrivals 16L	 Departures 16L		
Weather	 Southerly wind			
Timing	 Available 24 hours			
Special conditions	N/A			
Capacity	Low			
Forecast usage range (% of time)	2025 15.4%	Implementation <1%	+5 years <1%	2047 <1%



Single Runway 16

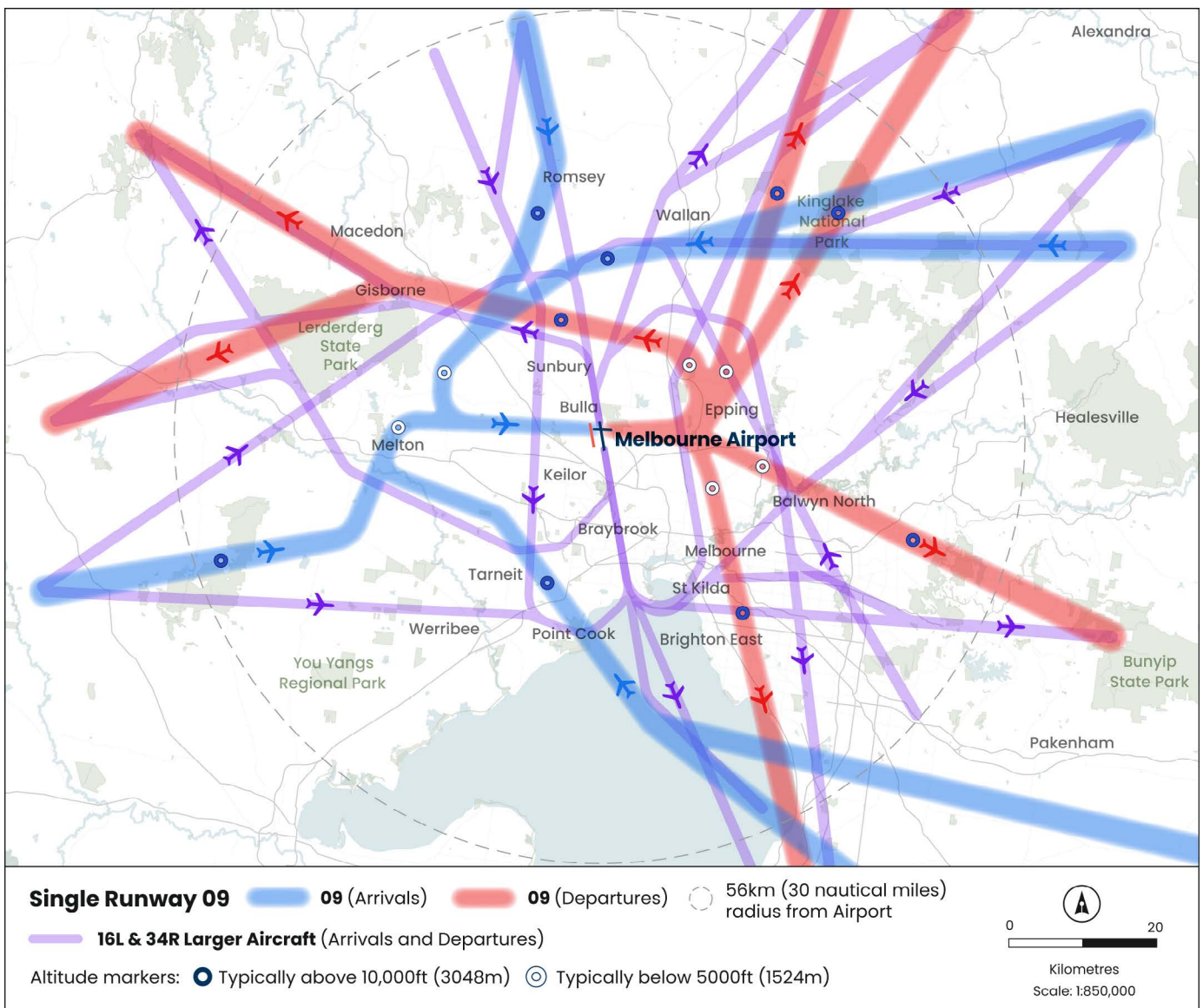
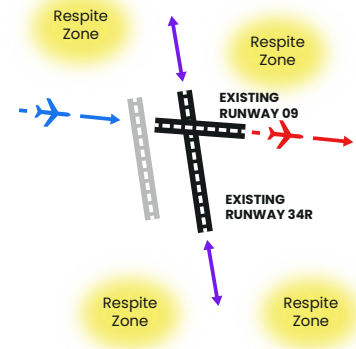
 16L (Arrivals)  16L (Departures)  56km (30 nautical miles) radius from Airport

Altitude markers:  Typically above 10,000ft (3048m)  Typically below 5000ft (1524m)



Single Runway 09

Runways	 Arrivals 09	 Departures 09		
Weather	 Easterly wind (rare)			
Timing	 Available 24 hours			
Special conditions	Larger aircraft may require the longer Runway 16L/34R for arrival or departure			
Capacity	Low			
Forecast usage range (% of time)	2025 0.2%	Implementation <1%	+5 years <1%	2047 <1%

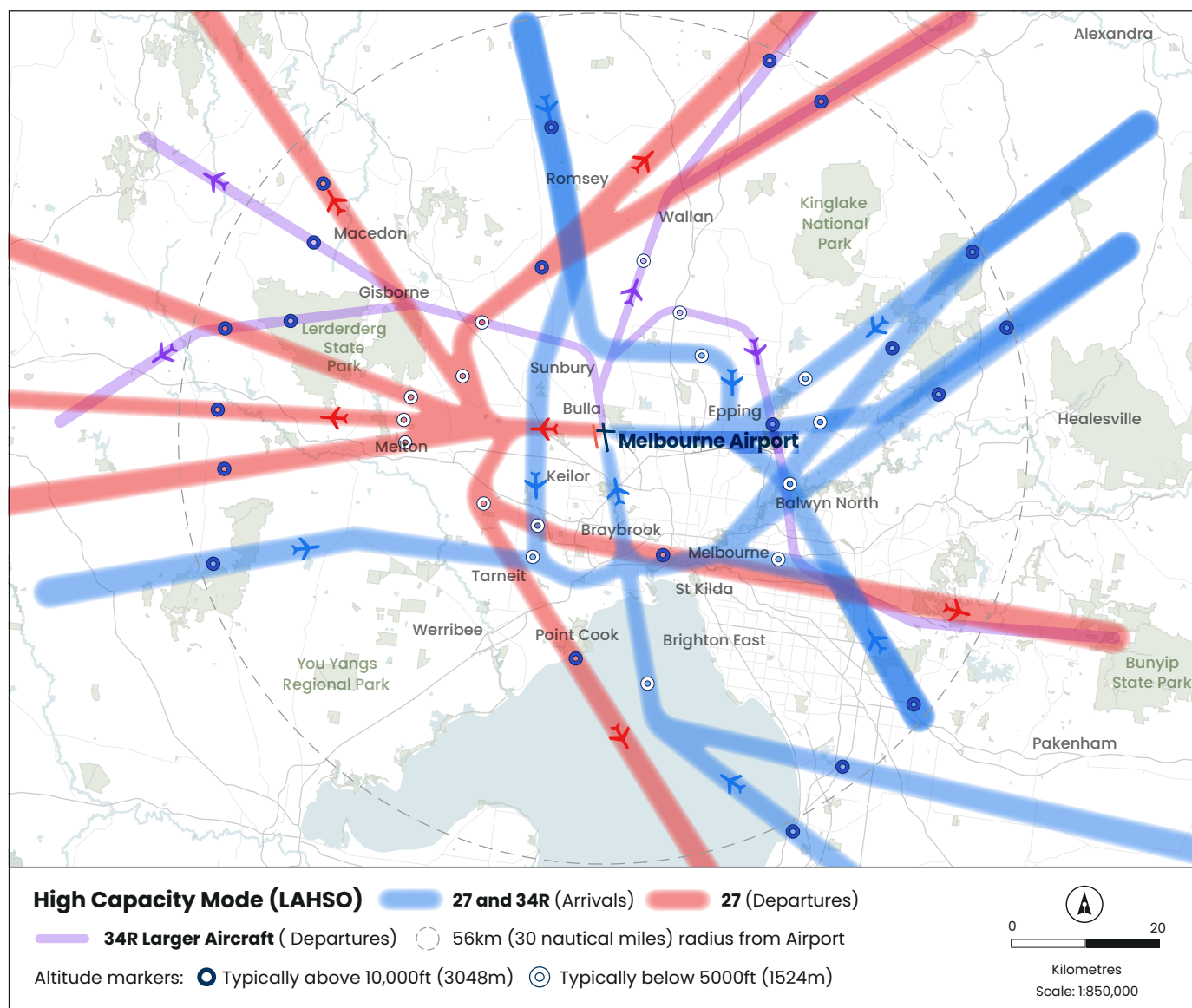
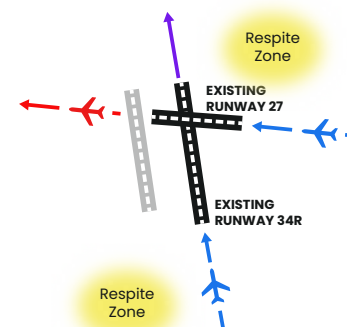


High-Capacity Mode (LAHSO)

The draft Noise Sharing Plan does not include the future use of LAHSO as it will be replaced with alternative parallel runway high-capacity modes (refer to Section 7.2).

Runways 27 and 34R for arrivals and departures

- Melbourne's only current high-capacity mode uses Land and Hold Short Operations (LAHSO) for approved operators and aircraft.
- LAHSO is a day-only mode and may be used during peak traffic periods only when specific weather conditions permit.
- Simultaneous arrivals are conducted on Runways 34R and 27, with departures allocated to Runway 27.
- Certain aircraft performance requirements may demand the use of the longer Runway 34R for departures depending on the local weather conditions at the airfield.
- LAHSO procedures require aircraft arriving on Runway 34R to stop and hold short of the Runway 27 intersection, enabling simultaneous and independent operations on both runways with amended separation requirements.



4.6 New modes introduced by the draft Noise Sharing Plan

The draft Noise Sharing Plan introduces seven new runway configurations to add to the seven current configurations that will be carried over for implementation of the third runway. LAHSO will not be maintained as an operating mode.

Each new mode is described below, together with the conditions under which Melbourne Airport will operate in that mode and the noise sharing benefits it is intended to deliver.

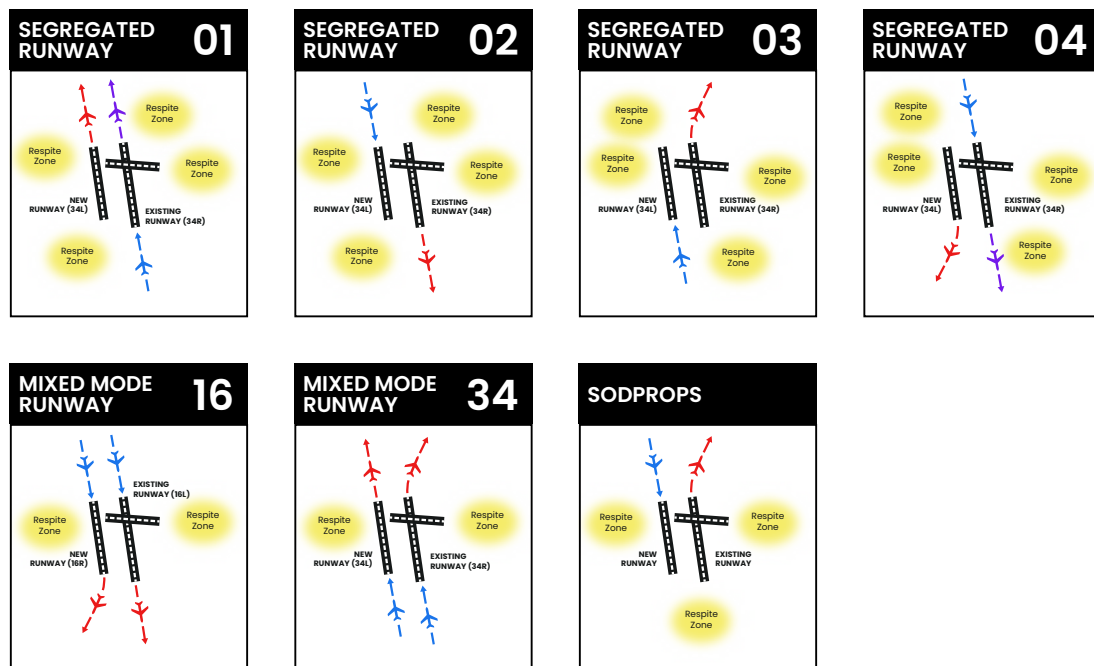
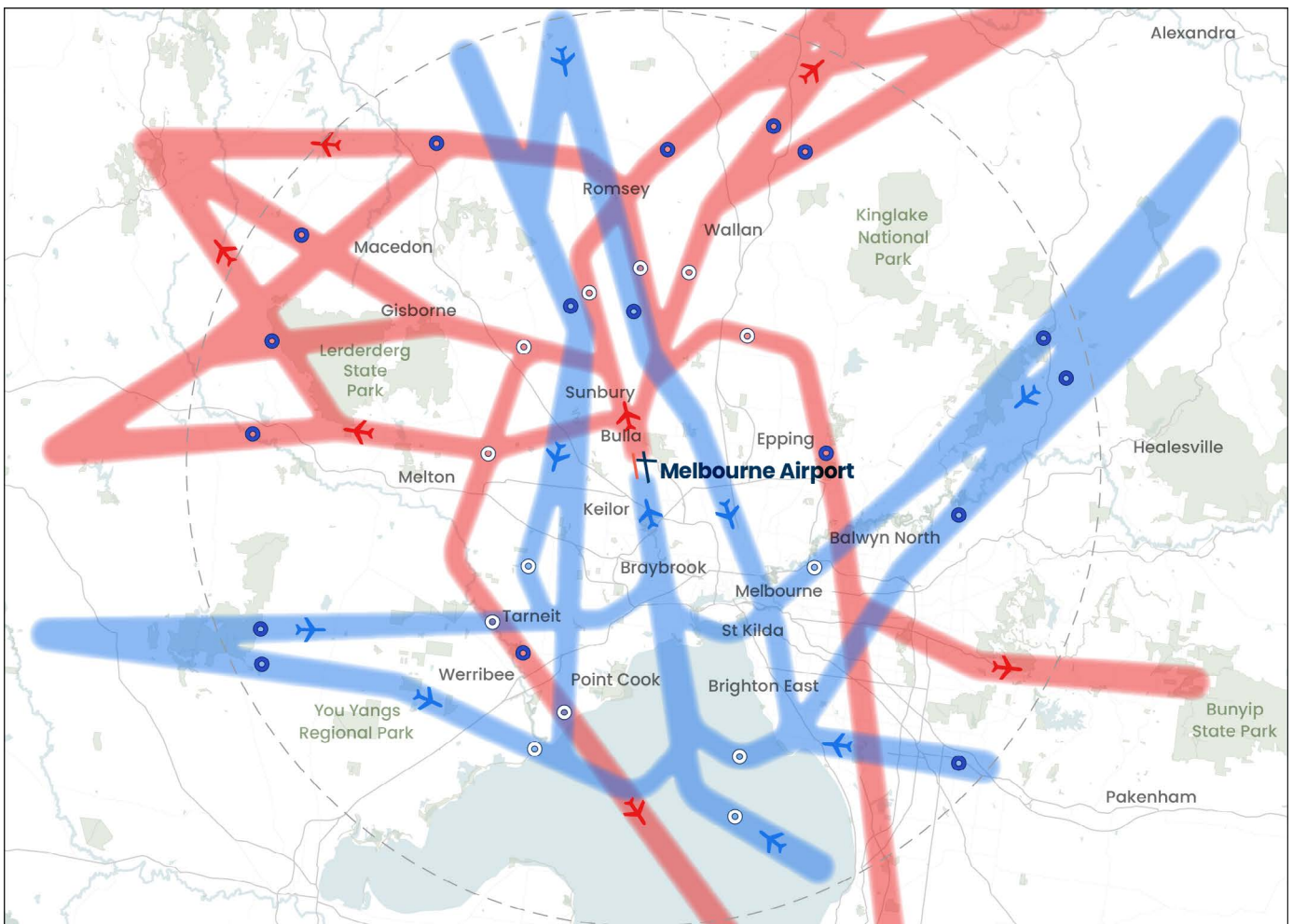
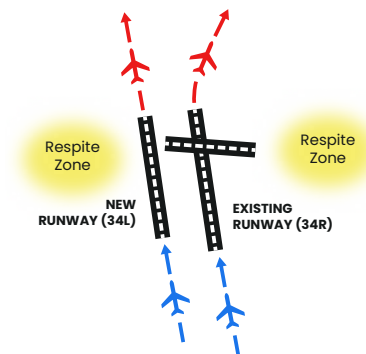


Figure 4.3 New runway modes

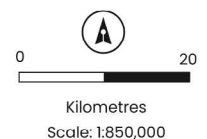
Mixed Mode Runway 34

Runways	 Arrivals 34R and 34L	 Departures 34R and 34L	
Weather	 Northerly wind		
Timing	 During high demand periods		
Special conditions	Runways are operated in 'independent parallel mode' meaning aircraft can land and depart side-by-side at the same time		
Capacity	High		
Forecast usage range (% of time)	Implementation 7-12%	+5 years 14-22%	2047 20-32%



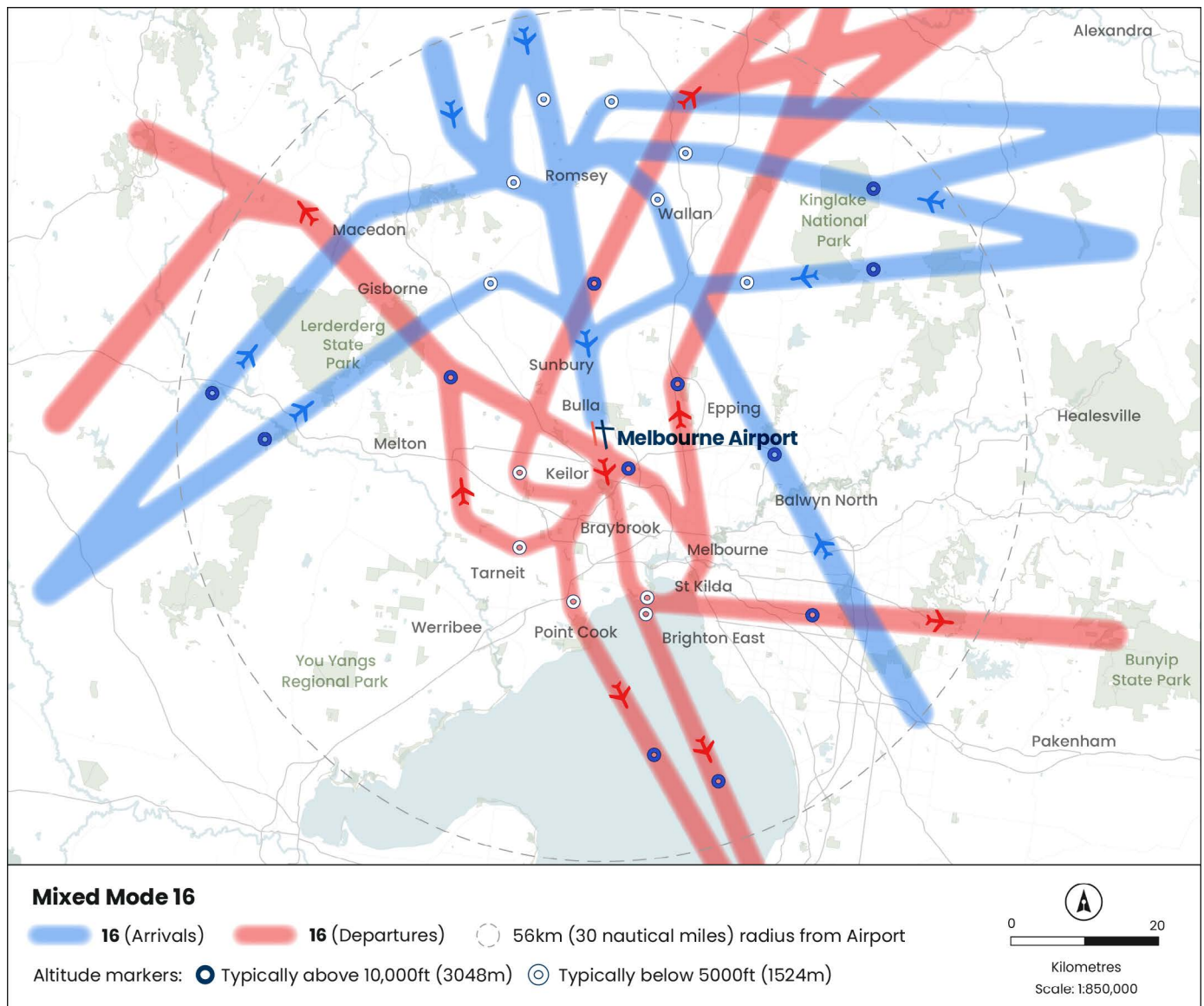
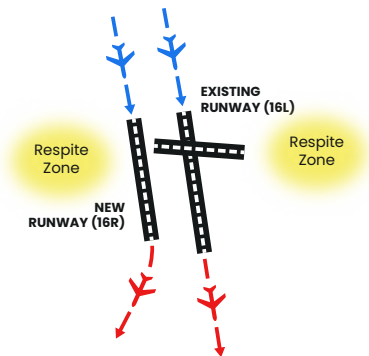
Mixed Mode 34

 34 (Arrivals)
  34 (Departures)
  56km (30 nautical miles) radius from Airport
 Altitude markers:  Typically above 10,000ft (3048m)
  Typically below 5000ft (1524m)



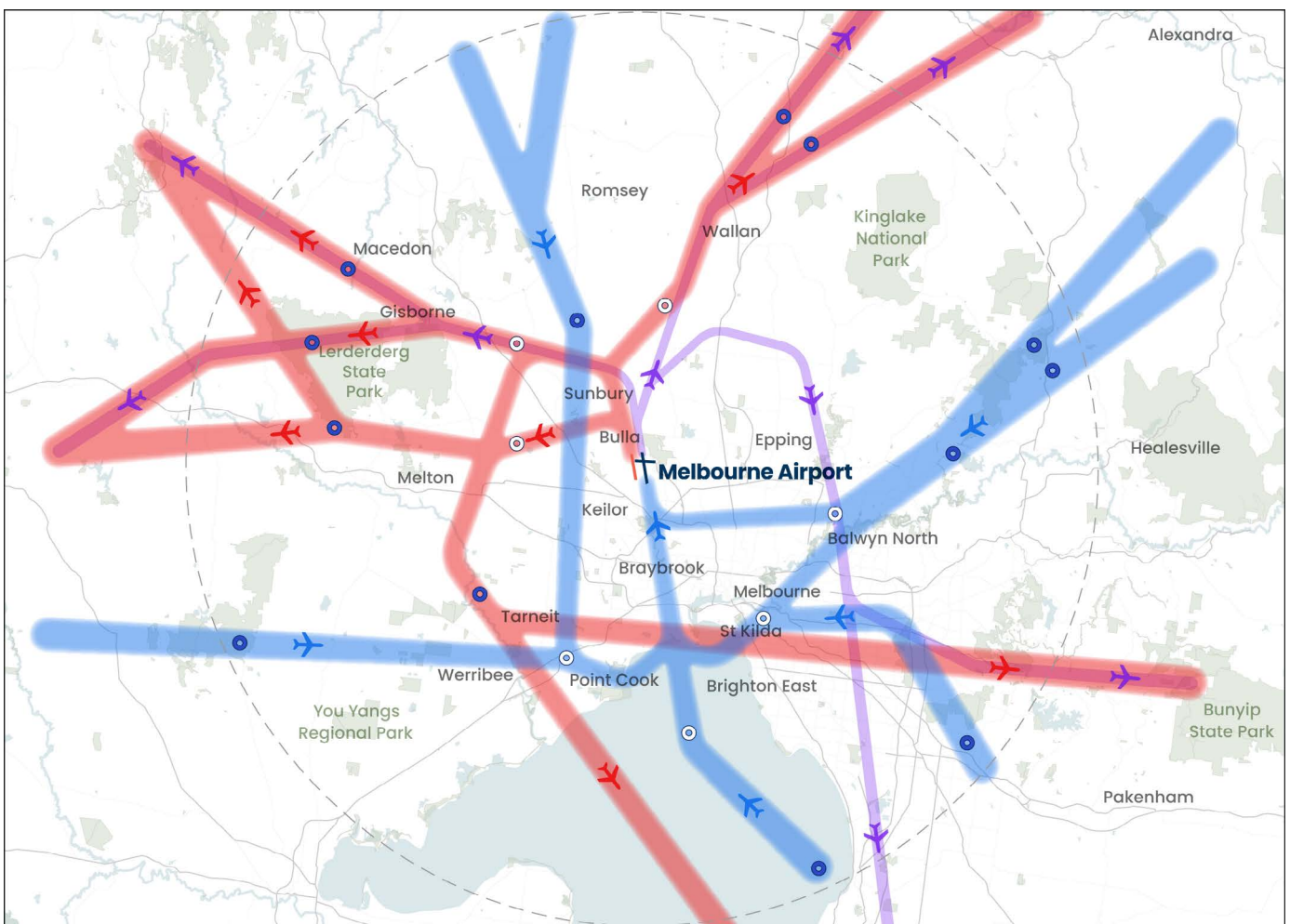
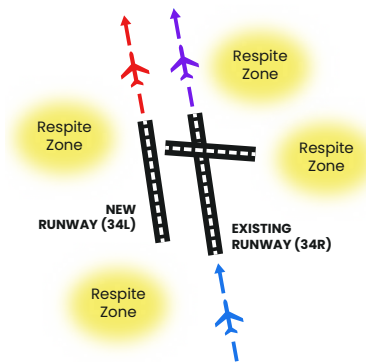
Mixed Mode Runway 16

Runways	 Arrivals 16R and 16L	 Departures 16R and 16L
Weather	 Southerly winds	
Timing	 During high demand periods	
Special conditions	Runways are operated in 'independent parallel mode' meaning aircraft can land and depart side-by-side at the same time	
Capacity	High	
Forecast usage range (% of time)	Implementation 3-6%	+5 years 10-17%
		2047 17-27%



Segregated Mode 1

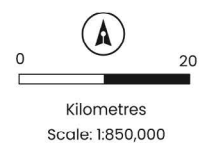
Runways	 Arrivals 34R	 Departures 34L
Weather	 Northerly wind	
Timing	 Available 24 hours, expected use 6am–11pm	
Special conditions	Some larger aircraft may require the longer Runway 34R for departure	
Capacity	Medium	
Forecast usage range (% of time)	Implementation 3–6%	+5 years 1–3%
		2047 3–5%



Segregated Mode 1

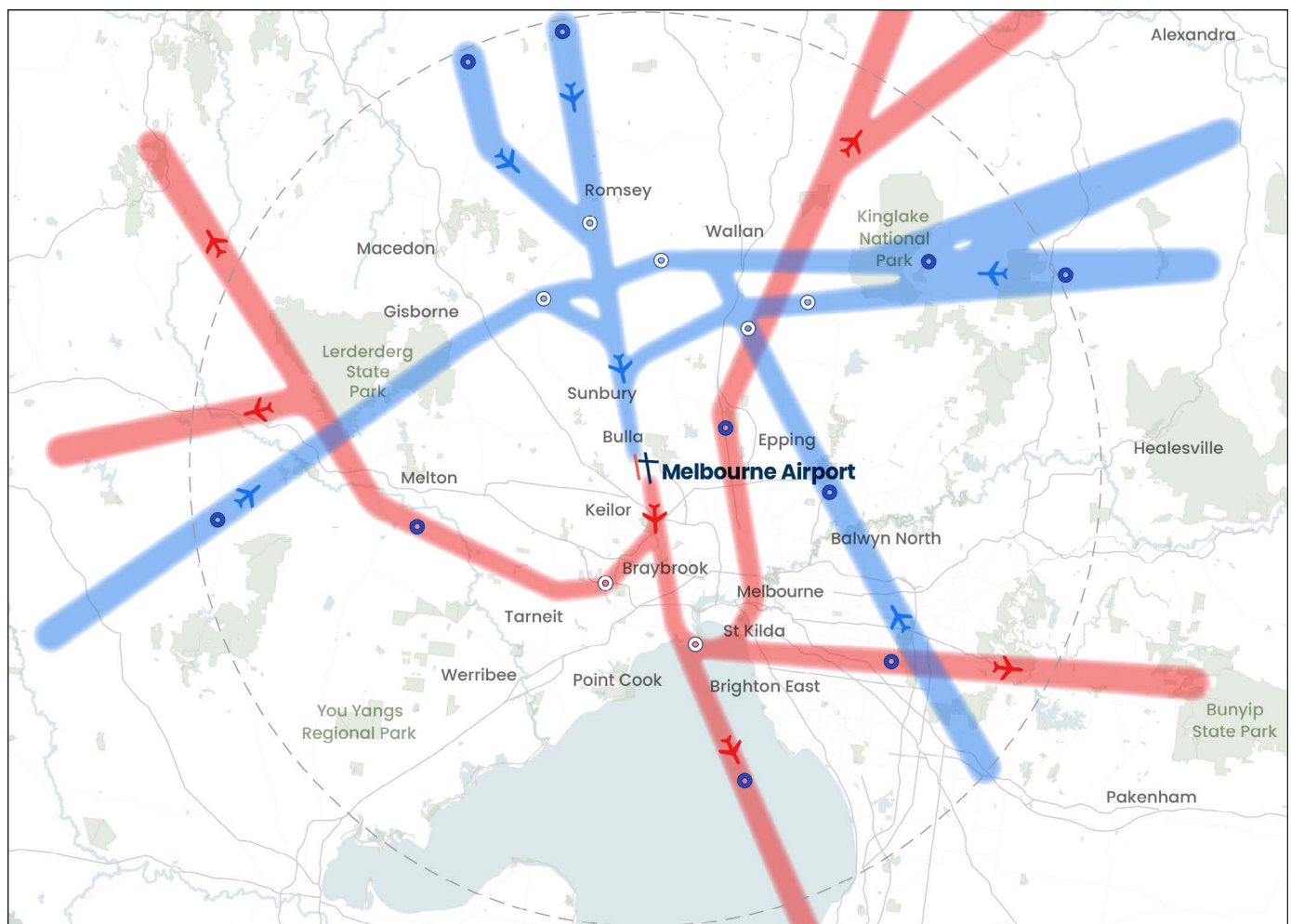
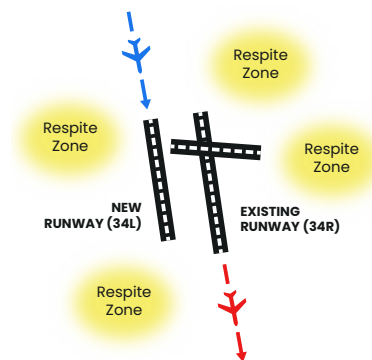
 34R (Arrivals)
  34L (Departures)
  34R Larger Aircraft (Departures)
  56km (30 nautical miles) radius from Airport

Altitude markers:  Typically above 10,000ft (3048m)
  Typically below 5,000ft (1524m)



Segregated Mode 2

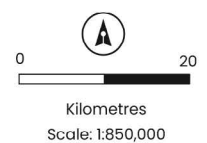
Runways	 Arrivals 16R	 Departures 16L
Weather	 Southerly winds	
Timing	 Available 24 hours, expected use 6am–11pm	
Special conditions	N/A	
Capacity	Medium-high	
Forecast usage range (% of time)	Implementation 4–8%	+5 years 5–9%
		2047 3–6%



Segregated Mode 2

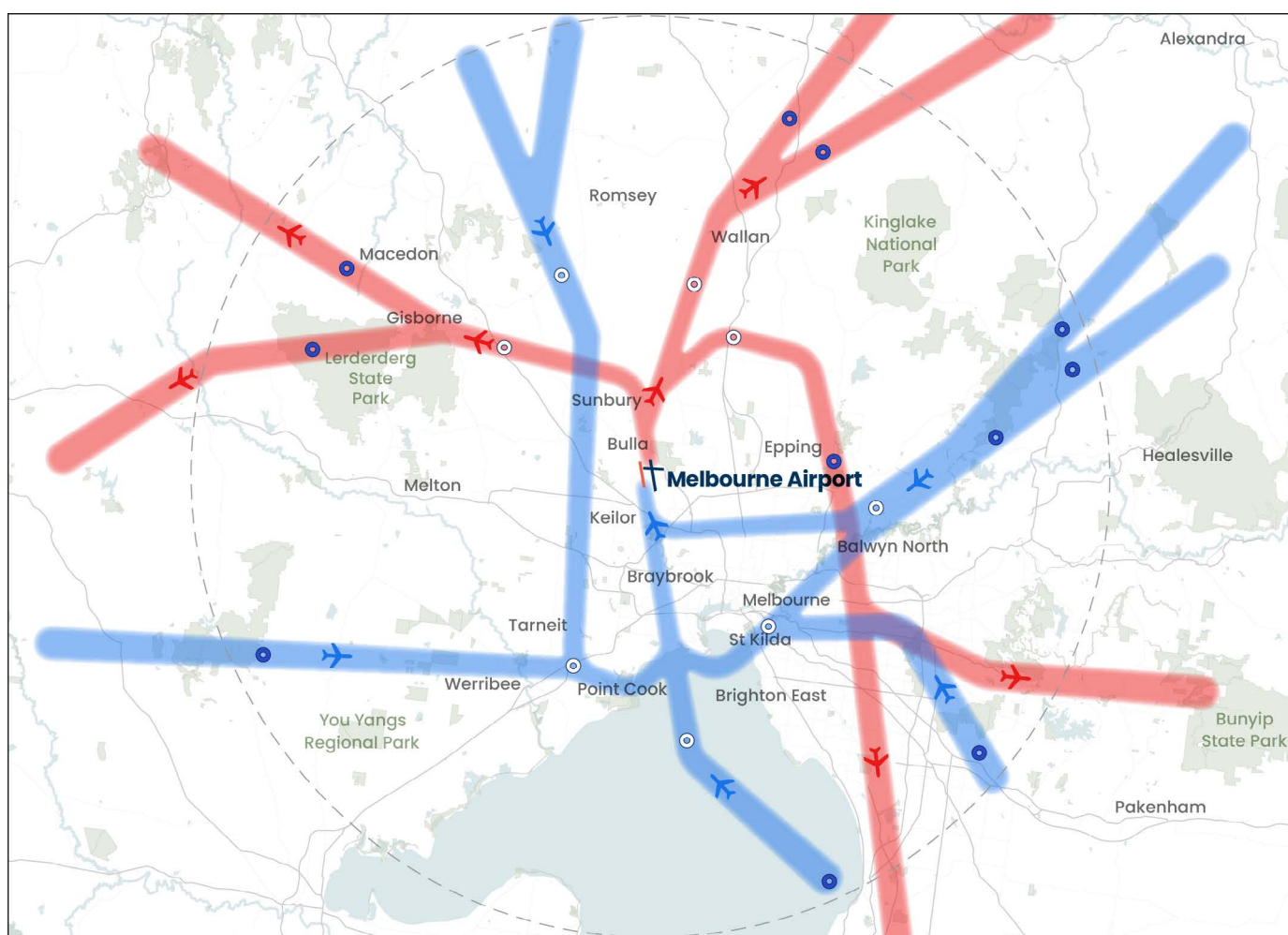
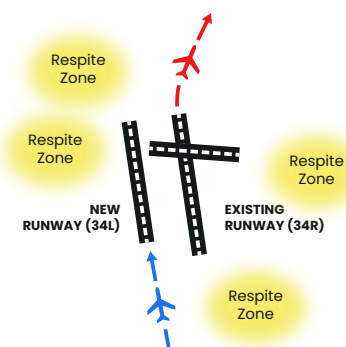
 16R (Arrivals)  16L (Departures)  56km (30 nautical miles) radius from Airport

Altitude markers:  Typically above 10,000ft (3048m)  Typically below 5000ft (1524m)



Segregated Mode 3

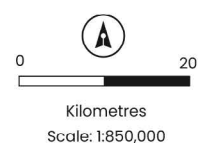
Runways	 Arrivals 34L	 Departures 34R
Weather	 Northerly wind	
Timing	 Available 24 hours, expected use 6am–11pm	
Special conditions	N/A	
Capacity	Medium – high	
Forecast usage range (% of time)	Implementation 9–14%	+5 years 8–13%
		2047 3–6%



Segregated Mode 3

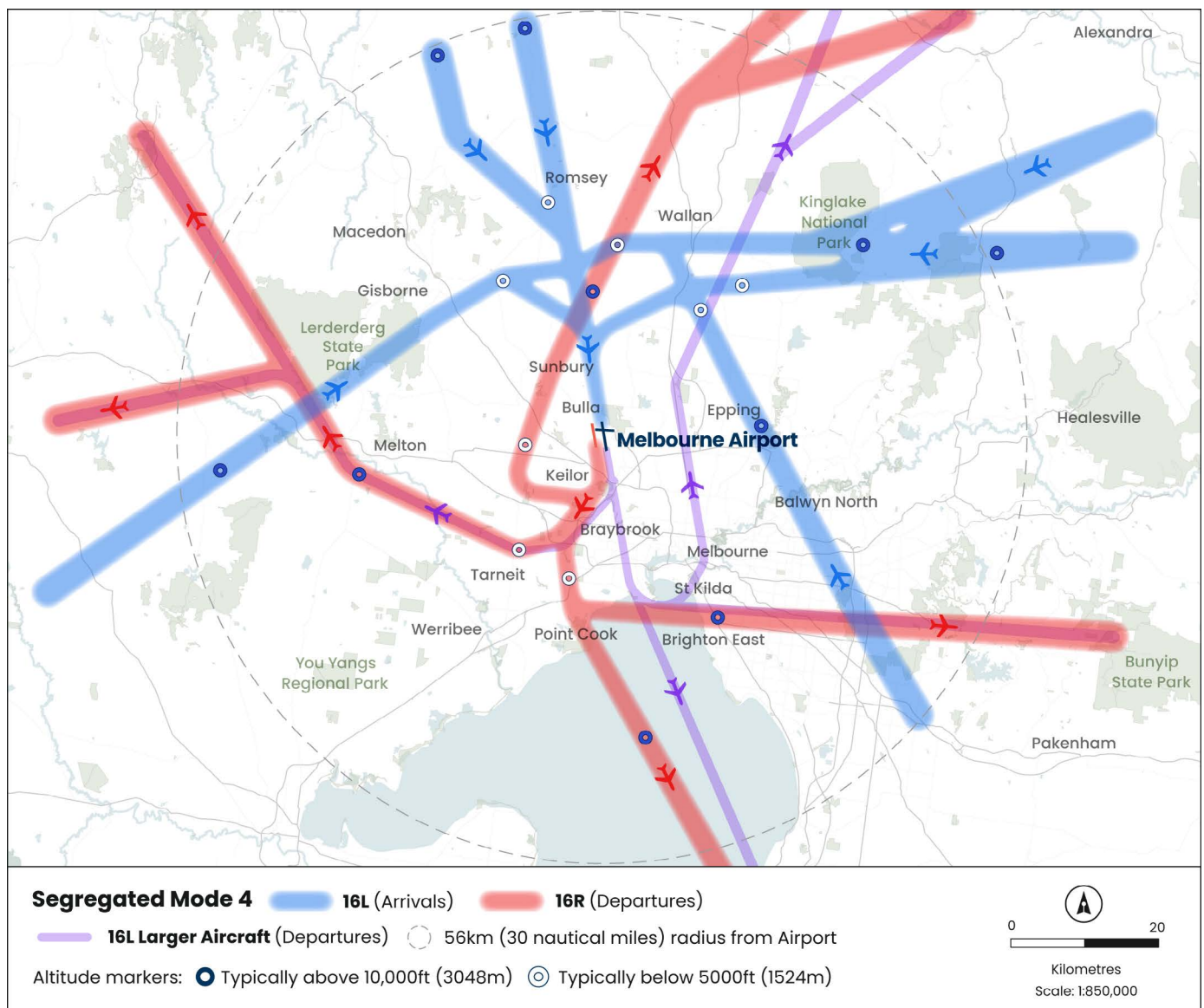
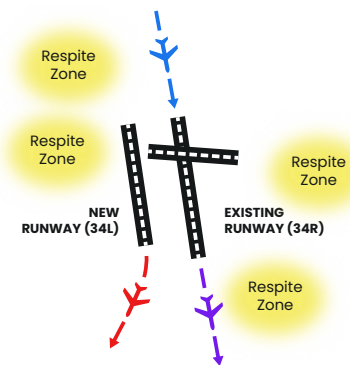
 34L (Arrivals)  34R (Departures)  56km (30 nautical miles) radius from Airport

Altitude markers:  Typically above 10,000ft (3048m)  Typically below 5000ft (1524m)



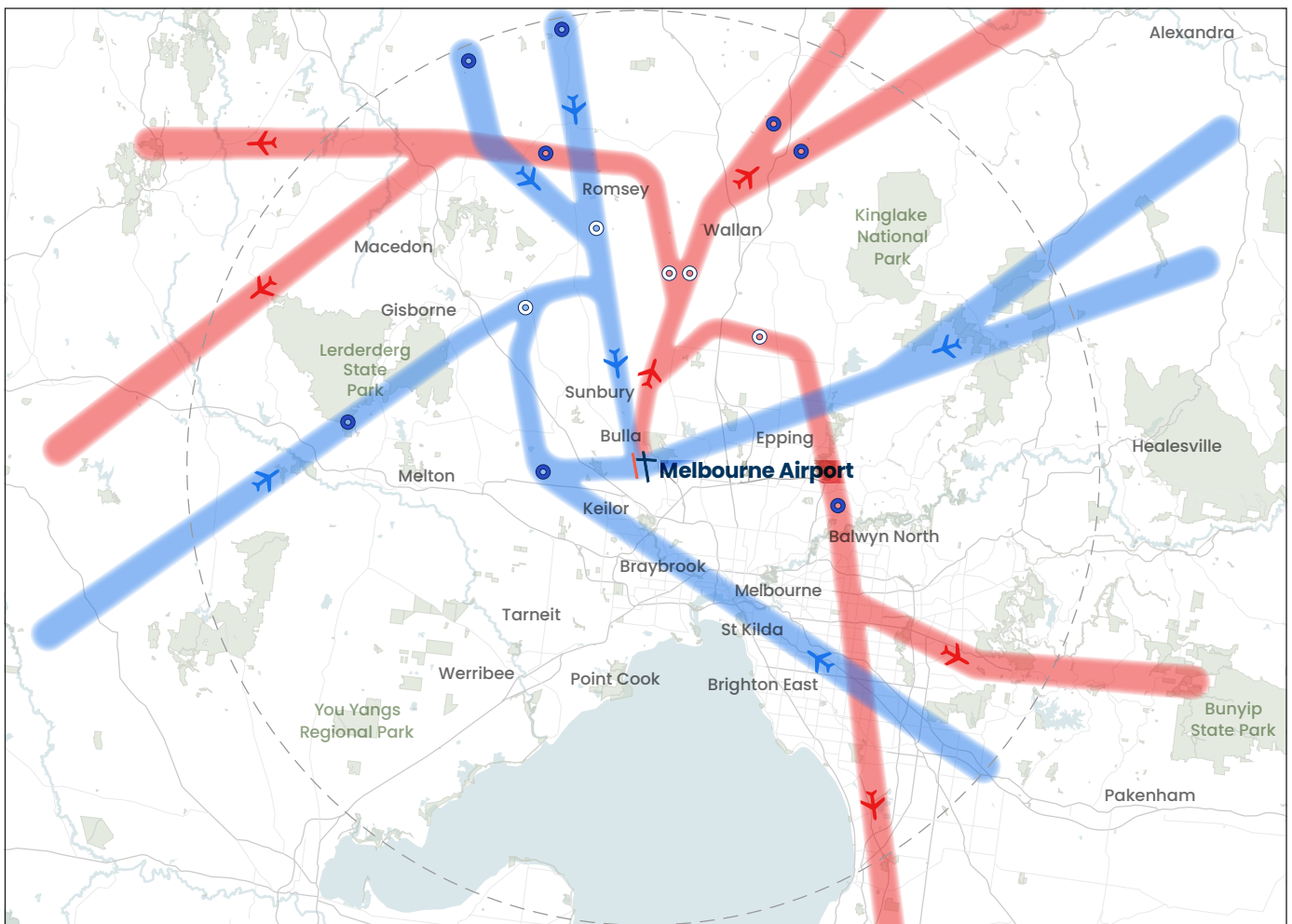
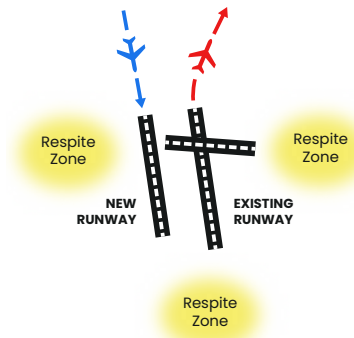
Segregated Mode 4

Runways	 Arrivals 16L	 Departures 16R
Weather	 Southerly winds	
Timing	 Available 24 hours, expected use 6am–11pm	
Special conditions	Larger aircraft may require the longer Runway 16L for departure	
Capacity	Medium	
Forecast usage range (% of time)	Implementation	+5 years
	<1–2%	<1%
		2047
		1–3%



Simultaneous Opposite Direction Parallel Runway Operations SODPROPS

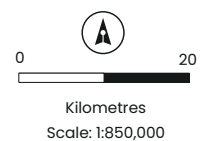
Runways	 Arrivals 16R	 Departures 34R
Weather	 Clear, wind less than 5 knots	
Timing	 Only used overnight (11pm – 6am)	
Special conditions	Requires a dry runway with visibility at least 8 kilometres and low traffic demand	
Capacity	Low	
Forecast usage range (% of time)	Implementation	+5 years
	<5%	<5%
		2047
		<5%



SODPROPS (Simultaneous Opposite Direction Parallel Runway Operations)

 16R (Arrivals)  34R (Departures)  56km (30 nautical miles) radius from Airport

Altitude markers:  Typically above 10,000ft (3048m)  Typically below 5000ft (1524m)



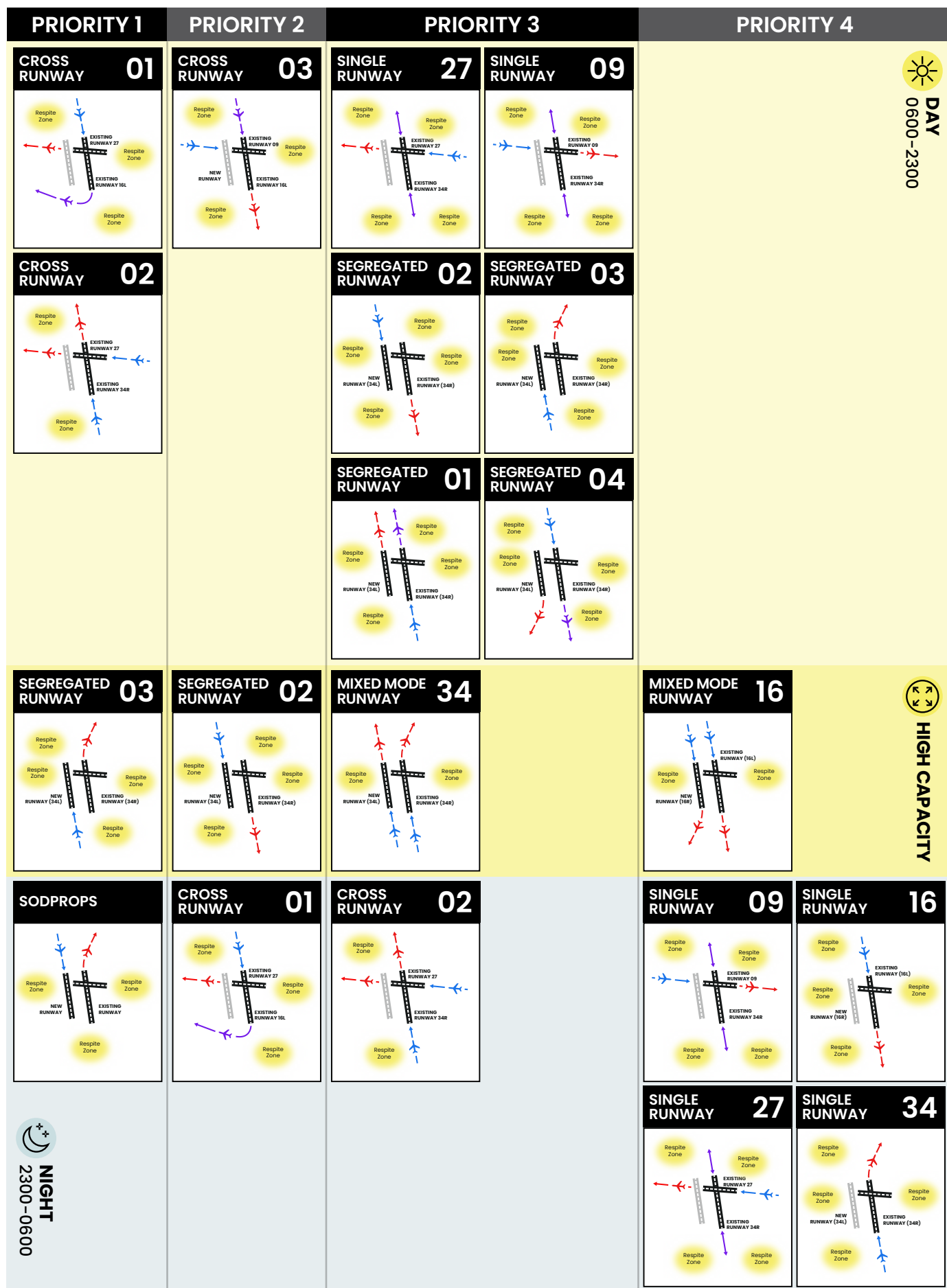


Figure 4.4 Proposed runway modes by priority

4.7 Airport activity levels

Table 4.1 below compares aircraft movement levels at Melbourne Airport and Essendon Fields Airport, providing an indication of the relative scale of operations at each airport during the reporting period.

Table 4.1 Aircraft movement comparison between Melbourne and Essendon airports

Metric	Melbourne Airport	Essendon Airport
Total movements	245,030	43,162*
Average daily movements	671	118
Busiest day (total)	766	197

NOTE: Data taken from movements in 2024

* Essendon total includes touch and go movements



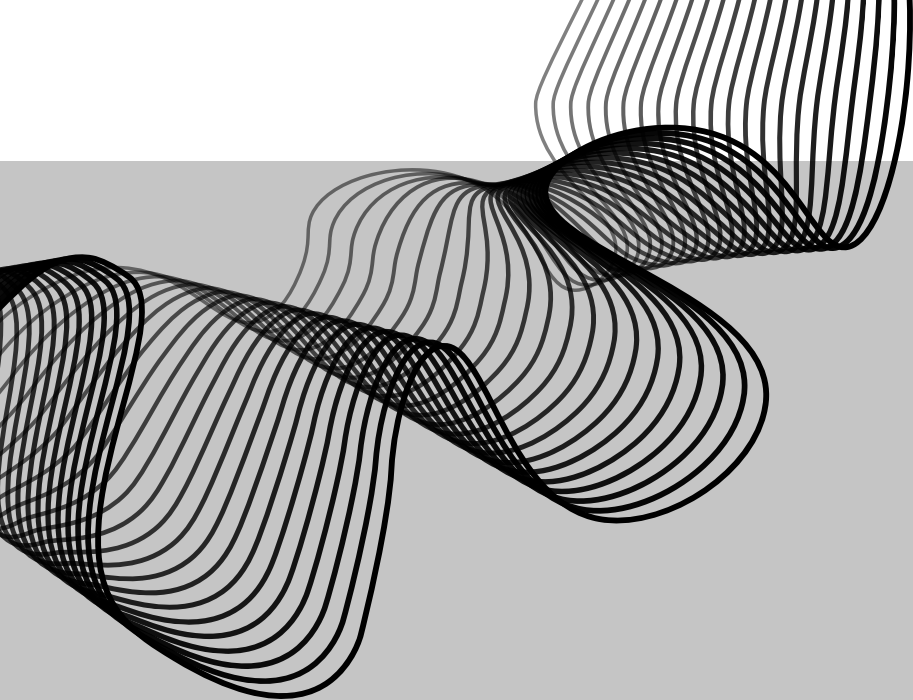


SAKON NAKHON

THU

CHALLENGER 550
MENZIES
AVIATION
TCR

TCR MENZIES



5

Aircraft noise

5. Aircraft noise

Aircraft noise cannot be eliminated at Melbourne Airport, but how it is distributed across the Melbourne Basin can be influenced

- Safety, regulation and airspace design set the boundaries for what is possible
- The draft Noise Sharing Plan focuses on improving respite opportunities, not eliminating noise

5.1 Sources of noise

Aircraft noise mainly comes from two sources:

1. The sound of air moving over the aircraft as it flies, including over the wings and body
2. From the aircraft's engines, particularly when they are operating at high power settings.

Noise is usually most noticeable during take off, climb, approach and landing, when aircraft are closer to the ground and operating near homes and other sensitive places.

This draft Noise Sharing Plan focuses on aircraft noise while aircraft are in flight. The draft Noise Sharing Plan provides optimised decisions about runway use, flight paths and operating procedures to provide the most effective way to influence how noise is distributed across different communities. By adjusting these elements, aircraft noise can be shared over time, allowing different areas to experience periods of relief from aircraft operations.

The draft Noise Sharing Plan does not address ground-based noise. Ground-based noise is regulated under the Airport Environment Protection Regulations and includes activities such as aircraft engine ground running, taxiing, airport operations and construction activities.

Two aircraft of the same type can sound quite different depending on when, where and how they fly. Factors include:

- type and size of the aircraft
- age of the engines and how hard they are working
- how heavily laden the aircraft is
- how the aircraft is flown
- how high it is at different points along its path
- where it is positioned in the sky
- weather conditions such as wind and temperature.

Noise from aircraft in the air is the focus of the Noise Sharing Plan.

Other ways Melbourne Airport manages noise

Aircraft noise is managed through a coordinated approach involving airports, government, airlines, aircraft manufacturers and Airservices Australia. These stakeholders work collaboratively to implement measures to manage and reduce noise impacts. The final Noise Sharing Plan forms one part of this broader framework and will operate alongside other measures, including but not limited to:

- **Quieter aircraft:** modern aircraft are designed to be quieter, helping reduce noise at the source.

- **Land use planning:** planning controls limit homes, schools and other sensitive buildings near the airport, while encouraging industrial and commercial uses instead.
- **Flight procedures:** where safe, aircraft may be directed over less populated areas or spread across different flight paths to reduce the impact on any one community.
- **Restrictions on noisier aircraft:** limits or bans can be placed on aircraft that do not meet current noise standards.

These measures help reduce aircraft noise overall, while the Noise Sharing Plan focuses specifically on how noise is shared between communities.

5.2 Measuring and reporting noise

Aircraft noise around Melbourne Airport is measured, monitored and reported using established noise monitoring systems, flight track data and recognised noise metrics.

Airservices Australia operates a network of permanent noise monitoring terminals in suburbs surrounding Melbourne Airport. When a noise event is detected, Airservices Australia's Noise and Flight Path Monitoring System identifies the aircraft involved, altitude and the level of noise. This system allows noise events to be linked to specific aircraft operations and assessed against approved flight paths and noise abatement procedures. Noise monitoring data, including near-real-time and historical information, is publicly available through Airservices' WebTrak platform or the Aircraft in your Neighbourhood website.

In addition to the permanent Airservices Australia monitoring network, Melbourne Airport operates portable noise monitors to provide additional localised noise data and respond to community feedback. These portable monitors supplement the permanent monitoring network, and their locations are reviewed over time to ensure coverage remains appropriate as airport operations evolve. Melbourne Airport publishes regular noise monitoring and contour reports, which include information on aircraft movements, runway use and a range of noise metrics. These reports are publicly available on Melbourne Airport's website and are shared with community forums, including the Melbourne Airport Community Aviation Consultation Group.

Where you can access noise reports

WebTrak

WebTrak allows you to view noise monitoring results and explore historical trends and patterns.



Melbourne Airport noise contours and reports

Reports containing a summary of aircraft movements by the time of day, aircraft type and runway used.



Airservices Aircraft in your neighbourhood

Learn about flight paths and aircraft movements in your area.



Aircraft noise is reported using a range of descriptors including:

Australian Noise Exposure Forecast (ANEF)	The ANEF is an officially recognised projection of future noise levels around an airport. For any federally leased airport, the Airports Act 1996 requires that each airport Master Plan include an ANEF to determine likely noise exposure around the airport. The ANEF chart depicts the accumulated noise impact of a full year of airport activity. The resulting contours reflect the total noise exposure across a 12-month period, divided by 365 to represent an average day, meaning they indicate neither the highest noise level on any given day, nor the noise from a single aircraft. ANEF contours are not expressed in standard decibels. Instead, they are derived from the Effective Perceived Noise Level in decibels (EPNdB) for each aircraft movement at the airport. EPNdB accounts for the characteristics that influence how disturbing aircraft noise feels to people. The contours also factor in cumulative exposure and apply additional weighting for night-time operations, reflecting people's heightened sensitivity to noise at night.
Australian Noise Exposure Index (ANEI)	The Australian Noise Exposure Index (ANEI) is a contour map that depicts modelled noise levels over a defined time period. ANEI contours are used primarily to document real-world noise exposure patterns for environmental reporting and comparison purposes. An ANEI uses the same noise calculation method and weighting as an ANEF but is prepared for a previous year using actual operational data.
Australian Noise Exposure Concept (ANEC)	An Australian Noise Exposure Concept (ANEC) is a contour based on modelled aircraft operations at an airport at some point in the future. ANEC maps rely on certain assumptions and may not have undergone formal review or endorsement. However, one or more ANECs can be converted into an ANEF once they have been assessed for technical accuracy by Airservices Australia.
N-above	Aircraft noise can also be characterised by counting the number of noise events that exceed a given threshold. These are referred to as 'N-above' metrics – for instance, an N70 contour identifies locations that experience noise events at or above 70 dB(A). The N-above framework was developed through collaboration between industry and government from the former Department of Transport and Regional Services (DoTARS). It aims to make aircraft noise information more accessible to the public by offering a tangible description of noise occurrence at a specific place and time. The N-above system is detailed in the DoTARS discussion paper <i>Expanding Ways to Describe and Assess Aircraft Noise</i> (2000), and its application is outlined in the <i>National Airports Safeguarding Framework (NASF) Guideline A</i> (2016). The most widely used N-above thresholds are N70, N65, and N60, representing events above 70 dB(A), 65 dB(A), and 60 dB(A) respectively. A 70 dB(A) event outdoors can represent a 60 dB(A) event inside, which is likely to interrupt a conversation. While 60 dB(A) event at night represent a 50 dB(A) event inside, which is when there are some instances of sleep disturbance. NASF Guideline A recommends considering the following N-above contours for noise-sensitive developments: • 20 or more daily events greater than 70 dB(A) • 50 or more daily events greater than 65 dB(A) • 100 or more daily events greater than 60 dB(A) • More than 6 events at night (11pm to 6am) above 60 dB(A).
Single event maximum noise levels (L_{Amax})	L_{Amax} is an A-weighted measurement of the peak noise level produced by an aircraft flyover, either as a modelled prediction or a recorded observation. The L_{Amax} value for an overflight therefore captures the highest noise level at a location during that event. L_{Amax} measurements feed into the calculation of N-above metrics. 'Single event' maximum noise contours show the peak L_{Amax} noise level associated with a specific aircraft type operating on a particular flight path.

Noise levels are measured in decibels (dB(A)), a standard unit used to describe how loud a sound is heard. While changes in decibel levels can sometimes seem small in number, they may still be noticeable to people. Comparing common everyday sounds with different aircraft operations can help provide useful context for how aircraft noise may be experienced by the community, refer to Figure 5.1 below.

Noise modelling for the draft Noise Sharing Plan and associated planning processes has been prepared using the Federal Aviation Administration Aviation Environmental Design Tool (AEDT), an internationally recognised aircraft noise modelling tool, consistent with Commonwealth requirements, and calibrated using actual flight and noise monitoring data.

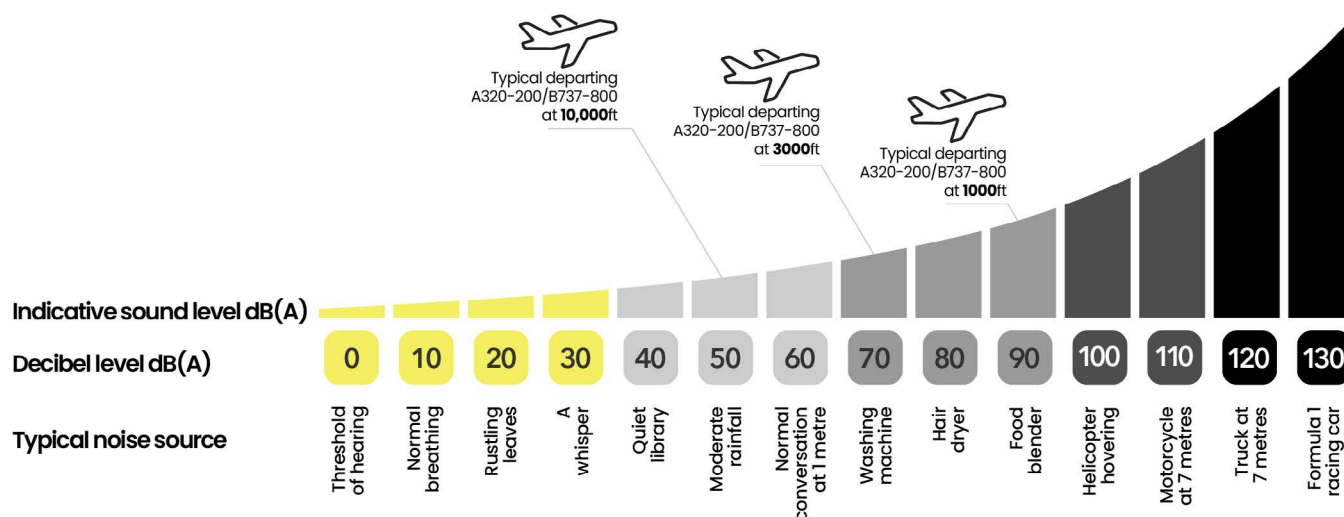


Figure 5.1 Noise scale dB(A)

5.3 Policy framework

The legal and policy framework for aircraft noise in Australia operates across several levels of government and industry responsibility. It combines international aviation standards, national legislation, airport planning requirements, state and local land use planning controls and day-to-day operational procedures. Each of these are outlined in Figure 5.2 below.

These responsibilities are delivered through:

- ICAO which sets global aviation noise standards and policy frameworks
- Australian Government legislation (CASA) and Air Navigation Service Providers (Airservices Australia)
- Australian Government airport planning instruments prepared by Melbourne Airport under the Airports Act 1996
- Victorian and local government planning frameworks that guide compatible land use around airports
- Operational measures such as runway use, flight path design and noise abatement procedures.

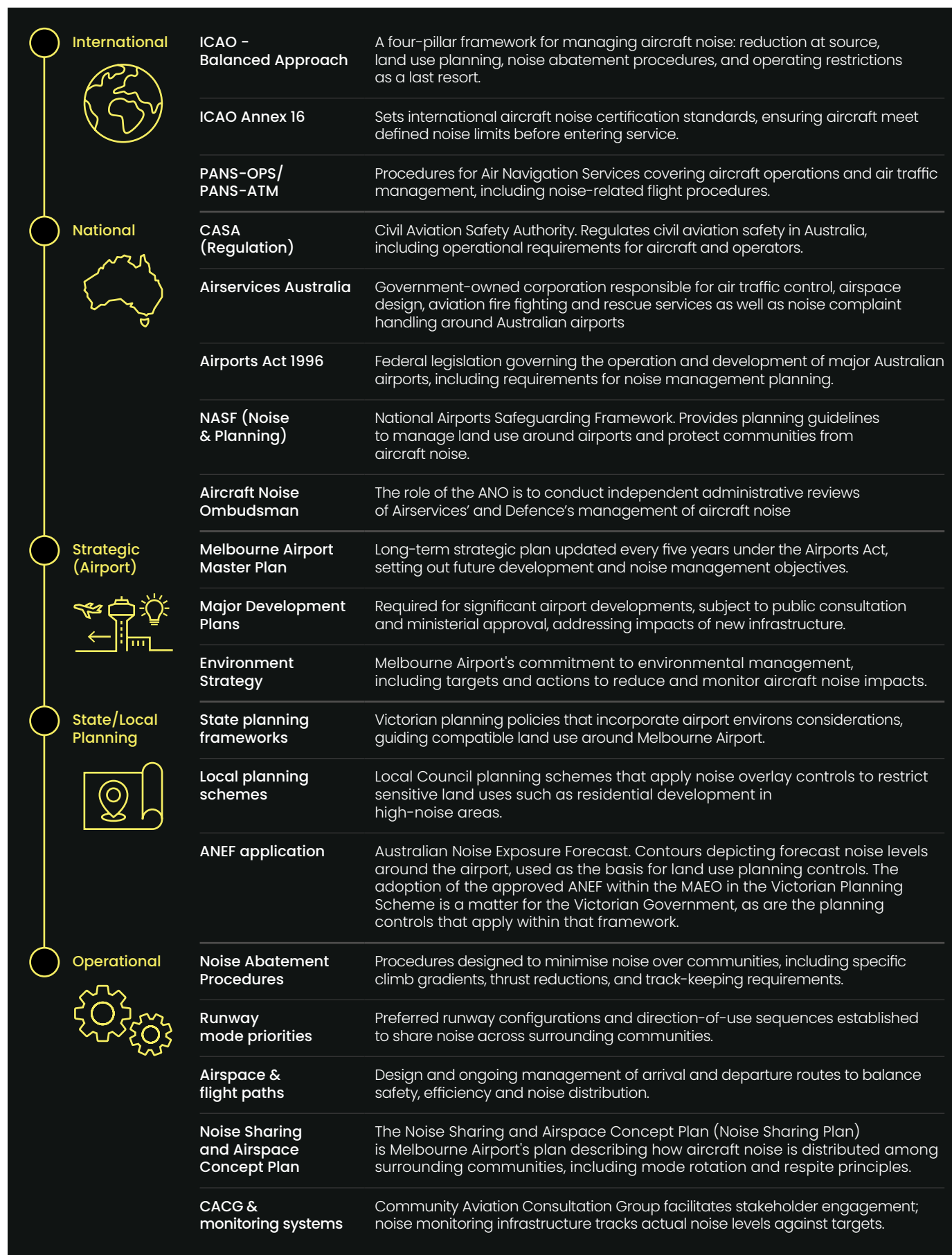


Figure 5.2 Relevant legislative frameworks and procedures used in the development of the draft Noise Sharing Plan

5.4 Measuring the health and wellbeing effects of aircraft noise

Aircraft noise is an unavoidable aspect of airport operations, and people may experience and respond to aircraft noise differently.

As part of the Australian Government's approval conditions for the Third Runway MDP, an independent long-term Community Health Study is being undertaken. This study will assess potential health impacts of aircraft noise on communities surrounding the airport associated with the operation of the third runway, before the runway becomes operational and for 20 years after operations begin.

The Terms of Reference for the world first Community Health Study were approved by the Federal Government in April 2026. The Terms of Reference establish a clear framework for the study with independent oversight and governance, baseline monitoring, ongoing community engagement, accessible public reporting and the use of noise exposure and health outcome data to monitor trends over time.

Further information is available on the Melbourne Airport Major Project's Hub.



5.5 Noise contours

Noise contours have been developed for the draft Noise Sharing Plan using AEDT modelling, consistent with the methodology outlined in Section 3.2. The modelling reflects forecast operations for Melbourne Airport, incorporating the proposed runway mode usage and flight path design associated with the draft Noise Sharing Plan.

The resulting contours provide an indicative representation of noise exposure under the draft Noise Sharing Plan operating framework and are presented in Appendix B. These contours support the assessment of noise distribution outcomes and demonstrate how noise sharing is achieved in the areas surrounding the proposed mode of operations.

Noise contours have been developed for the following three points in time to show how noise is expected to change over time and with predicted traffic growth:

- Implementation of the new runway (circa 2031)
- Implementation +5 years
- The year 2047.

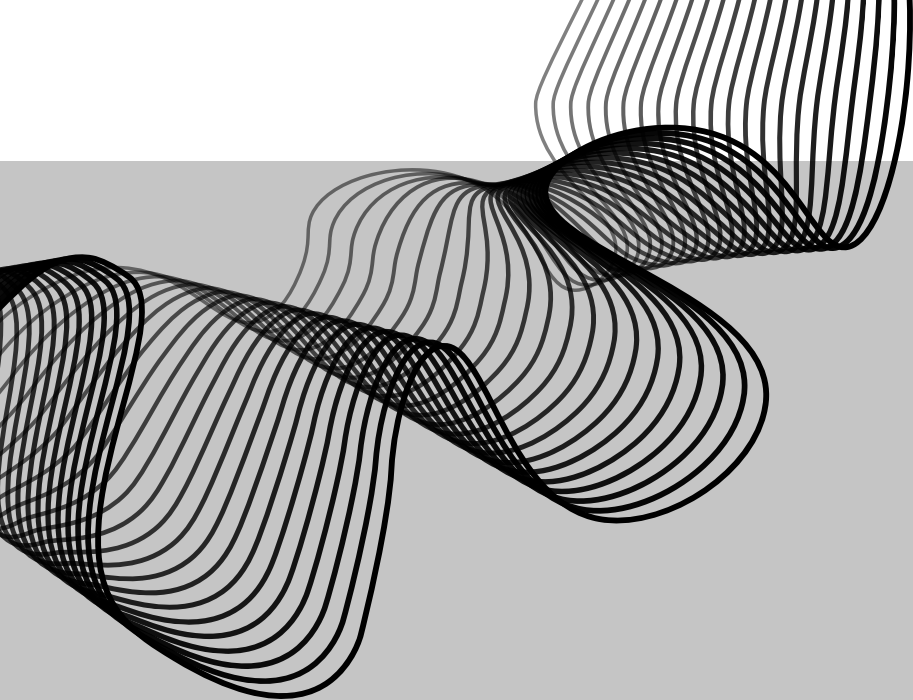
N60 and N70 24-hour noise contours

N60 and N70 24-hour noise contours are shown for the three periods listed above. The contours show that from implementation through to 2047, the number of noise events associated with the cross runway (Runway 09/27) reduce along with an increase to those associated with the parallel north-south runways (Runways 16L/34R and 16R/34L). This supports the expected increase in the use of mixed and segregated modes to support the forecast traffic growth across this period.

N60 night noise contours

N60 night noise contours are also shown for the three periods listed above. The contours show that from implementation through to 2047, there is only a marginal increase in the number of noise events, with associated noise contours also increasing slightly, particularly to the south over Port Phillip Bay and to the northwest.





6

Surrounding airports

6. Surrounding airports

Noise outcomes are shaped by a broader, interdependent airspace system

- Coordination with surrounding airports constrains how operations can be configured
- Effective noise sharing must operate within this regional network, not in isolation

The airspace surrounding Melbourne Airport forms part of a complex aviation environment that includes a mix of major and regional airports, general aviation facilities, military operations at RAAF Base Point Cook, and a range of other airspace users. These include private operators, flight training schools, emergency services, as well as recreational and commercial activities such as skydiving and ballooning. While Figure 6.1 identifies the primary airport locations within the Melbourne Basin, the broader airspace is shared by a wide variety of users operating under different regulatory and operational frameworks.

The Noise Sharing Plan has been developed with an understanding of this diverse operating environment, recognising the need to balance Melbourne Airport operations with the requirements, constraints and safety considerations of all airspace users.

“Consider air traffic patterns from other airports”



Response: The contribution of noise from other airports in the Melbourne region is outside the scope of this project. However, this section outlines how different runway operating modes at Melbourne Airport may influence operations at surrounding airports. The project will continue engaging with surrounding airports as the draft Noise Sharing Plan is finalised.



Figure 6.1 Airports surrounding Melbourne Airport

6.1 Essendon Fields Airport

Essendon Fields Airport is located approximately eight kilometres south-east of Melbourne Airport. Because the two airports are close together, operations at Essendon Fields are closely linked to the runway configuration in use at Melbourne Airport. This helps ensure aircraft arriving and departing both airports can operate safely within the shared airspace. Figure 6.2 depicts the relative locations of the two airports.

Air traffic controllers coordinate movements between the two airports using a range of procedures, including visual separation when conditions allow. This provides flexibility to manage traffic efficiently while maintaining safety. As a result, aircraft arriving to and departing from Essendon Fields may be seen in different parts of the sky depending on the runway mode in use at Melbourne Airport, traffic levels and weather conditions.



Figure 6.2 Proximity between Melbourne Airport and Essendon Fields Airport

Essendon Fields Airport also plays an important role in supporting emergency services operations, including police, air ambulance, medical transfer and other time-critical response flights. These operations require reliable and priority access to the airspace at short notice. It is a requirement that the introduction of the new runway at Melbourne Airport does not affect these activities, with airspace planning and operating procedures designed to preserve efficient access for emergency services while maintaining the safe and orderly movement of all aircraft.

Figure 6.3 depicts historical flight paths across a two-month period in 2024 and shows the clear separation of flight paths to the northwest of Essendon Fields Airport.

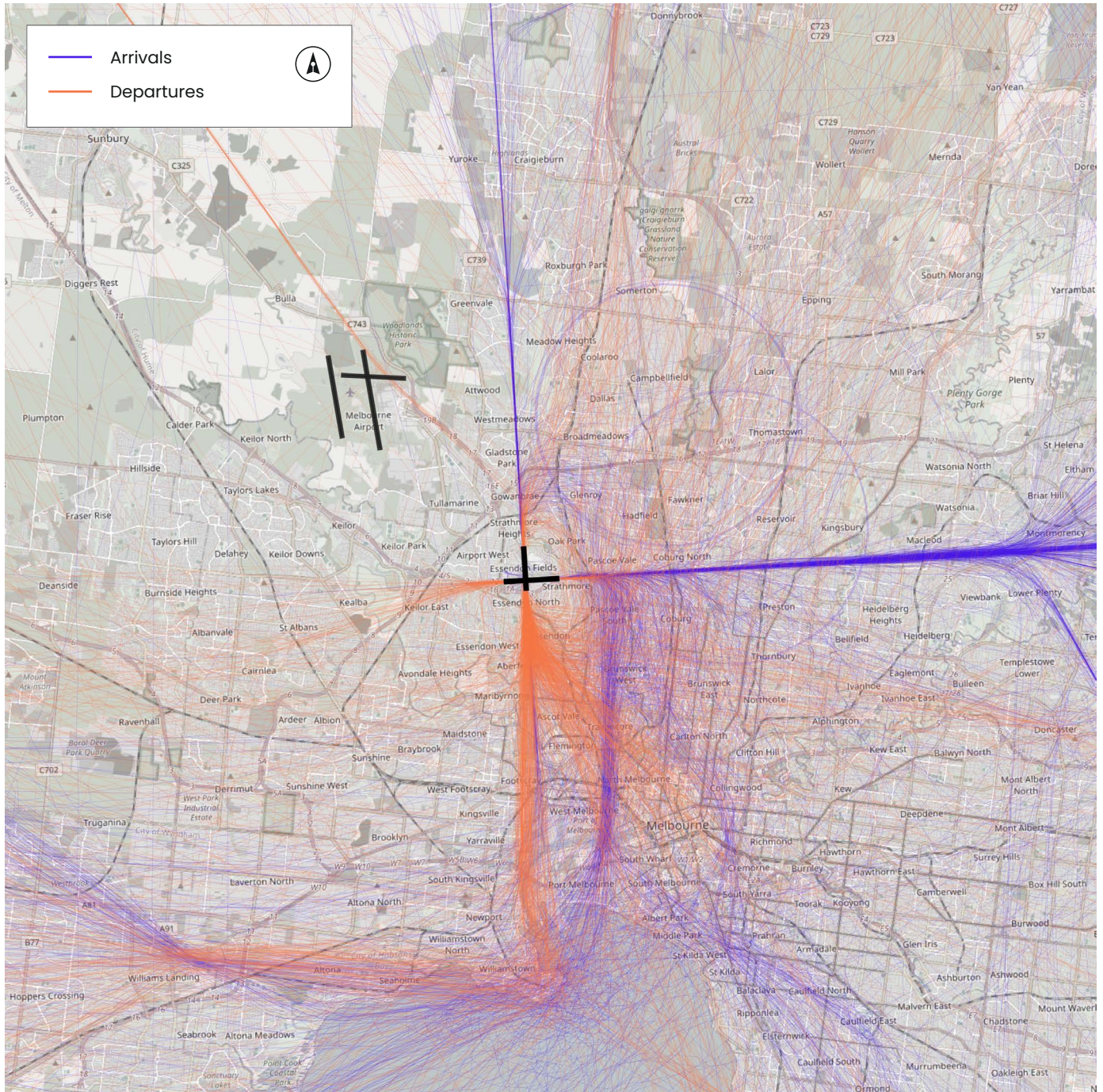


Figure 6.3 Essendon Fields Airport historical flight paths

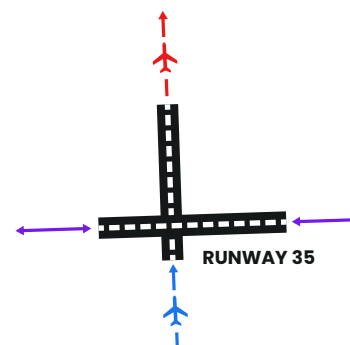
Essendon Fields Airport Runway Configurations

The four primary Essendon runway configurations have been assessed for compatibility with the proposed Noise Sharing Plan modes at Melbourne Airport, and each is described below. These can also be used in a cross runway mode configuration when required by Air Traffic Control.

Essendon Fields Airport: Runway 35 operations

Runway 35 at Essendon is the preferred configuration in northerly wind conditions. When Runway 35 is operating at Essendon, Runways 34L, 34R, or 27 will typically be operating arrivals and departures at Melbourne Airport.

This combination will correspond to Mixed Mode 34 arrivals at Melbourne Airport and will represent the most common pairing of Melbourne and Essendon northerly operations. Runway 35 currently accounts for approximately 20% of Essendon operational usage.

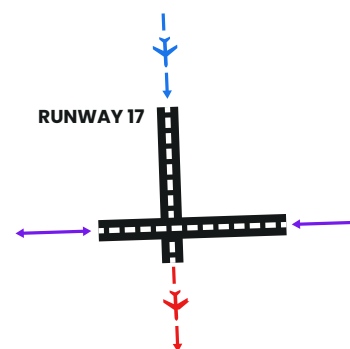


Essendon Fields Airport: Runway 17 operations

Runway 17 at Essendon is the preferred configuration in southerly wind conditions and is the most operationally complex of the three Essendon configurations in terms of interaction with Melbourne Airport traffic.

When Runway 17 is operating at Essendon, Runways 16L and 27 will be operating arrivals and Runways 16L, 16R, and 09 will be operating departures at Melbourne Airport. This combination will correspond to Mixed Mode 16 departures at Melbourne Airport.

Runway 17 accounts for approximately 24% of current Essendon arrival usage and 62% of departure usage, reflecting the strong southerly wind preference at the site.

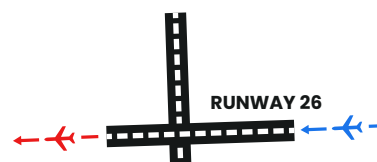


Essendon Fields Airport: Runway 26 operations

Runway 26 at Essendon is the preferred configuration in westerly wind conditions as it is operationally separated from Runway 27 operations at Melbourne. Runway 26 departures and missed approaches are an operational restriction to any aircraft arriving or departing south of Melbourne Airport.

When Runway 26 is operating at Essendon, Runways 34R, 34L, or 27 will typically be operating arrivals and departures at Melbourne Airport.

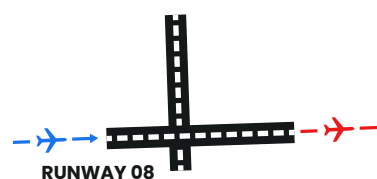
Runway 26 carries the highest arrival usage at Essendon, accounting for approximately 57% of arrivals, as it is served by an Instrument Landing System (ILS) approach that makes it the best equipped runway for instrument meteorological conditions, and training flights. It is also Essendon's longest runway and therefore the preferred runway for departure operations involving larger or heavier aircraft based at the airport. Runway 26 accounts for approximately 11% of current Essendon departure usage.



Essendon Fields Airport: Runway 08 operations

Runway 08 at Essendon is currently the least used runway operation mode due to the infrequent easterly winds experienced in Melbourne.

Runway 08 operations are expected to increase in frequency once Melbourne's third runway is operational, and Melbourne is operating runways 34 or 16.



Essendon current day preferred runways

Preferred runway use at Essendon Airport supports noise management outcomes and is closely tied to operations at Melbourne Airport.

With regards to the application of preferred runways, operations at Melbourne Airport typically have priority over operations at Essendon Airport. As a result, runway selection at Essendon is influenced by operations at Melbourne Airport.

During the day period (6am – 11pm), Essendon preferentially uses Runways 26 and 17 for arrivals, and Runways 26 and 35 for departures, with Runway 08 as a secondary option, details are provided in Table 6.1. Where Melbourne is operating Runway 34 arrivals, departures at Essendon are preferentially assigned to Runway 35 or 17. These preferences continue to apply to all aircraft, with flexibility for helicopter operations where appropriate.

Operations on the non-nominated runways may occur when aircraft operate in a runway configuration that differs from the preferred runway mode in use at Essendon Fields Airport. These operations may be required to accommodate aircraft performance requirements, operational considerations, weather conditions, air traffic management requirements or other safety-related factors.

Table 6.1 Historical usage of runway modes and non-nominated runway use (Movements), Jan 2023– March 2025

Mode	% of use	Use of non-nominated runway (% movements)*			
		Arrivals		Departures	
Runway 26 Arrivals, Runway 17 Departures	45%	12%		8%	
		Runway 17 11%	Runway 35 1%	Runway 08 4.6%	Runway 26 3.5%
Single Runway 35	20%	6%		8%	
		Runway 26 5.4%		Runway 08 6.4%	Runway 17 1.2%
Single Runway 17	16%	7%		5%	
		Runway 26 6.5%		Runway 08 3.5%	
Single Runway 26	11%	8%		16%	
		Runway 35 7.6%		Runway 17 8.0%	Runway 08 5.8%
Single Runway 08	<1%	25%		30%	
Runway 35 Arrivals, Runway 08 Departures	<1%	32%		4%	
Runway 26 Arrivals, Runway 08 Departures	<1%	0%		0%	

* Operations with less than 1% of non-nominated movement were not included.

Current preferred runways (0600 to 2300)

Priority	Arrivals	Departures
1	Runway 26 or 17	Runway 26 or 35
2	Runway 35	Runway 17
3	Runway 08	Runway 08

Current night preferred runways (2300 to 0600)

Priority	Arrivals	Departures
1	Runway 17	Runway 35
2	Runway 26	Runway 26
3	Runway 35	Runway 17
4	Runway 08	Runway 08

6.2 Moorabbin Airport

Moorabbin Airport is located 41 kilometres south-east of Melbourne Airport and serves as one of Australia's primary hubs for pilot training and light aircraft operations. The airport has five intersecting runways, enabling flexible operations across varying wind conditions. It handles some smaller commercial traffic, primarily focussed on flight schools, private operators, maintenance organisations and emergency services. The high volume of training circuits makes it one of Australia's busiest airports by aircraft movements despite its relatively small physical footprint.

Traffic at Moorabbin is dominated by high-frequency training operations, with aircraft behaviour structured and repetitive compared to major commercial airports. There is also a steady flow of arrivals and departures transitioning to and from training areas to the south and east, where pilots conduct navigation exercises, general handling and instrument training.

Industry engagement is the primary mechanism through which Moorabbin stakeholders are being consulted on changes at Melbourne Airport. Of particular interest are controlled airspace changes that may affect Moorabbin flights crossing Port Phillip Bay, flying the coastal route between Carrum Beach and Altona South, conducting instrument approaches, or any changes with implications for operations to the north near Kilmore.

6.3 Royal Australian Air Force (RAAF) Base Point Cook

RAAF Base Point Cook is located 31 kilometres south-west of Melbourne Airport and today accommodates the RAAF Museum's flying displays alongside flight training schools operating from the aerodrome. The introduction of arrivals onto the new runway at Melbourne Airport includes flight paths that will track overhead the Point Cook area, which may marginally reduce available airspace directly above the aerodrome.

The future role of RAAF Base Point Cook remains uncertain following the Australian Government's decision to divest the site. While heritage preservation and community outcomes are expected to be key considerations, any future changes to aviation activity, land use, or airfield operations may influence the broader operating environment in Melbourne's western corridor and should be considered as part of future progression of the Noise Sharing Plan.

6.4 Avalon Airport

Avalon Airport is a major aviation facility located approximately 45 kilometres south-west of Melbourne Airport. It supports a mix of regular public transport, freight, general aviation, aircraft maintenance, defence-related activities, and aviation events.

Avalon operates within the broader Melbourne Basin airspace environment and shares airspace interfaces with Melbourne Airport and other nearby aviation operators.

While Avalon's operations are largely independent of Melbourne Airport, future growth in aircraft movements and changes to airspace arrangements may influence airspace management and operational interactions across the region.

"Redirect (flights) to Avalon Airport"



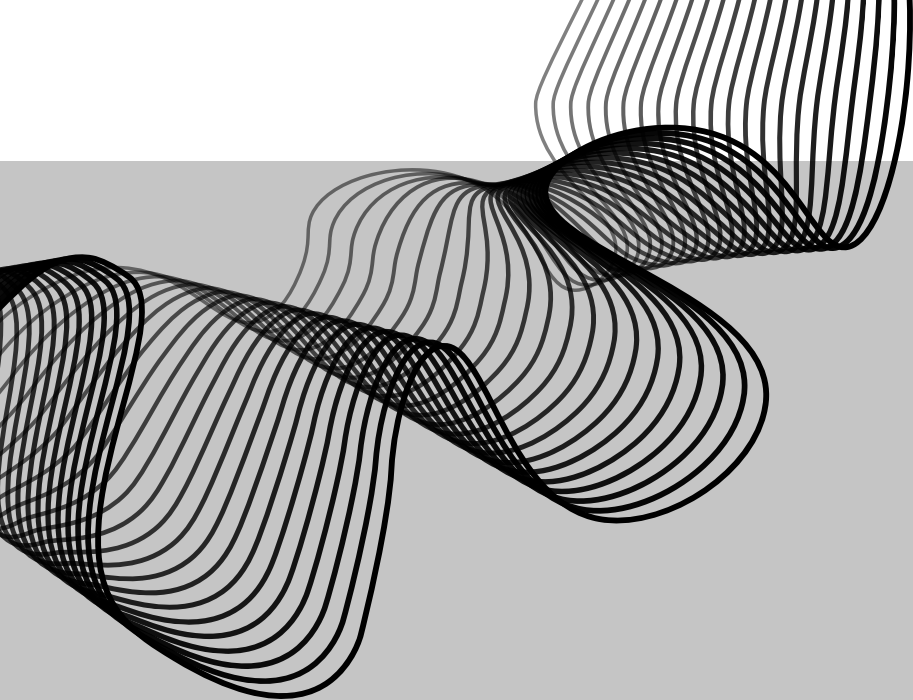
"Access other airports... so the (impacts) are shared..."

Response: The Noise Sharing Plan focuses on how aircraft use the runways and flight paths at Melbourne Airport, with the aim of sharing noise more fairly across communities.

It isn't able to move flights to other airports. Decisions about where flights operate are made by airlines, based on factors like passenger demand, routes, infrastructure and commercial considerations, which sit outside the scope of the Noise Sharing Plan.

6.5 Other Operations

The Melbourne Basin supports a diverse range of aviation activities beyond operations at Melbourne Airport and other closely located airports. These include pilot training, parachuting and skydiving operations, ballooning activities, search and rescue training, emergency services operations, military aviation and general aviation movements. These activities and operations influence airspace design, flight path development and operational procedures across the Melbourne Basin and are important considerations in the development and ongoing review of the Noise Sharing Plan.



7

**What to
expect when the
Noise Sharing Plan
is implemented**

7. What to expect when the Noise Sharing Plan is implemented

Runway operations will become more dynamic to manage capacity and community outcomes

- Noise will be redistributed, changing when and where aircraft noise is experienced
- Outcomes will depend on active management of operating modes rather than fixed patterns

The Noise Sharing Plan will be implemented after the completion of construction works associated with the Third Runway and Eastern Extension projects.

This section explains how aircraft operations are expected to change following implementation, with a focus on runway use, operating modes and the practical implications for noise distribution. It outlines the recommended runway mode priorities for day, high capacity and overnight periods, explains how these differ from current arrangements, describes how the Noise Sharing Plan balances safety, operational efficiency, conditions of approval and community noise sharing objectives.

This draft Noise Sharing Plan proposes a revised mode priority order for day, high-capacity, and night periods. The structure of this revised order reflects two objectives:

1. Delivering noise sharing outcomes for the communities surrounding Melbourne Airport (outside of peak periods and when weather conditions permit).
2. Fulfilling the conditions of approval to maximise use of the cross runway 09/27 outside of peak periods.

7.1 Recommended runway mode priority

Once the third runway becomes operational, circa 2031, Melbourne Airport will operate two parallel north-south runways (16L/34R and 16R/34L) and a cross runway (09/27).

The runway mode priority order is the sequence in which Air Traffic Control will operate the runway modes, working from the most preferred through to the least preferred, subject always to safety requirements, wind conditions and traffic demand.

Understanding runway mode priority

Runway mode priority does not mean that runways at Melbourne Airport will always operate in the stated order. Safety considerations, wind conditions, traffic volume, and aircraft performance requirements can and will result in arrivals and departures using the non-preferred priority. The priority is a guide for operational decision-making when conditions allow a choice.

7.2 Operating principles

There are operating principles that guide how the runway operating modes will be selected once all three runways are operational. These principles provide a transparent framework for decision making, explaining how safety, capacity, efficiency, noise sharing objectives and ministerial requirements are balanced under different operating conditions. Separate principles apply to daytime and night time periods to reflect differences in traffic demand, operational needs and community sensitivity to aircraft noise.

Daytime operating principles (0600–2300)

The priority order for selection of runway operating modes during the daytime period is based on the following principles (in no specific order):

- **Capacity-driven mode selection** – high-capacity operating modes are to be utilised where required to meet increased traffic demand. High-capacity modes are prioritised according to separate criteria (Section 4.3).
- **Efficient use of existing modes during off-peak periods** – during lower demand periods, existing runway operating modes and established priority order should be applied.
- **Preference for segregated operations when required** – where weather conditions necessitate the use of north-south runways, segregated modes are to be prioritised over single runway operations to maintain higher levels of operational capacity.
- **Preference for northerly modes on north-south runways** – northerly operations (using Runway 34L and/or Runway 34R) are to be prioritised over southerly operations (using Runway 16L and/or Runway 16R), consistent with the Third Runway MDP. This directs departures over the less densely populated areas to the north of the airport, with arrivals flying over the more densely populated areas to the south.
- **Segregated Mode alternation** – during off-peak periods and where operationally possible, alternation between like segregated modes should be utilised (refer Section 8.2).

Night-time operating principles (2300–0600)

The priority order for runway operating modes during the night period is guided by the following principles (in no specific order):

- **Reduced requirement for high-capacity modes** – traffic demand during night hours does not typically require the use of high-capacity operating modes.
- **Prioritisation of SODPROPS where feasible** – due to the specific weather and traffic conditions required for SODPROPS, this mode is to be prioritised when conditions permit, to support its utilisation.
- **Use of existing modes where SODPROPS is unavailable** – where SODPROPS cannot be implemented, existing runway operating modes should be applied.
- **Preference for single runway operations on north-south runway** – single runway operations are to be retained on the existing north-south runway during the night period, as traffic demand during night hours does not typically require the use of segregated operating modes.

7.3 Current runway mode priorities

The following tables set out the current runway mode priority arrangements for Melbourne Airport across the three operational periods. These arrangements have been in place for a number of years and form the baseline against which the Noise Sharing Plan changes are assessed. The tables below also include historical runway mode usage data from January 2023 to March 2025 inclusive. Larger aircraft may impact the proportion of arriving and departing aircraft on the preferred runway as they require the non-nominated runway for their operation.

Today's operations, like in the future, are dependent on a number of factors and do not always reflect the priority order below.



Current day priorities (0600 to 2300)

Priority	Name	Arrivals	Departures	Historic day usage	Arrivals on non-nominated runway (%)	Departures on non-nominated runway (%)
1	Cross Runway 1	Runway 16L	Runway 27	38.1%	3.2%	16.3%
	Cross Runway 2	Runway 27	Runways 27 and 34R	14.7%	25.4%	<1%
2	Cross Runway 3	Runway 09	Runway 16L	1.6%	17.1%	<1%
3	SRO 27	Runway 27	Runway 27	4.3%	9.4%	14.4%
4	SRO 16L	Runway 16	Runway 16	17.1%	<1%	2.6%
	SRO 34R	Runway 34	Runway 34	19.5%	1.0%	1.3%
5	SRO 09	Runway 09	Runway 09	0.3%	9.8%	21.3%



Current day high-capacity priorities

Priority	Name	Arrivals	Departures	Historic day usage	Arrivals on non-nominated runway (%)	Departures on non-nominated runway (%)
1	High-Capacity (LAHSO)	Runways 27 and 34R	Runway 27	3.1%	<1%	20.8%



Current night priorities (2300 to 0600)

Priority	Name	Arrivals	Departures	Historic night usage	Arrivals on non-nominated runway (%)	Departures on non-nominated runway (%)
1	Cross Runway 1	Runway 16L	Runway 27	40.1%	3.0%	31.8%
2	Cross Runway 2	Runway 27	Runways 27 and 34R	24.7%	40.3%	0.6%
3	SRO 27	Runway 27	Runway 27	10.3%	13.0%	12.1%
4	SRO 34R or 16L	Runways 34R or 16L	Runways 34R or 16L	24.3%	3.6%	3.8%
5	SRO 09	Runway 09	Runway 09	0.1%	3.6%	7.1%

7.4 Proposed runway Noise Sharing Plan mode priorities

The proposed mode priorities introduce a number of new configurations along with retention of the existing modes (with the exception of LAHSO). The foundation of the current arrangement with cross-runway modes at the top of the priority list has been retained. Key changes are targeted at achieving outcomes in response to the conditions of approval or specific operational or noise sharing objectives.

Note that the priority lists that follow assume the availability of all runways for operational use. Should any runway or associated infrastructure be unavailable for maintenance or for any other reason, priority order will be adhered to as far as is operationally practicable.

“Consider more options that offer more regular respite”



Response: The Third Runway Major Development Plan introduced an increase in runway operating modes from 8 to 14. The Noise Sharing Plan goes further to explain how air traffic control can use these additional modes to create greater flexibility to share noise and provide respite across communities.



Proposed day priorities (0600 to 2300)

	Priority	Name	Arrivals	Departures
Cross Runway	1	Cross Runway 1	Runway 16L	Runway 27 and 16L
	2	Cross Runway 2	Runway 27 and 34R	Runways 27 and 34R
		Cross Runway 3	Runway 09 and 16L	Runway 16L
Weather dependent	3	SRO 27	Runway 27	Runway 27
		SM1 or SM3	Runways 34R or 34L	Runways 34R or 34L
		SM2 or SM4	Runways 16L or 16R	Runways 16L or 16R
		SRO 09	Runway 09	Runway 09
Shaded rows represent new modes.			Larger aircraft runway mode (as required).	

Under the current arrangement, when cross-runway configurations cannot be utilised, the priority order moves on to Runway 34 or 16 at Priority 3, which are single runway operations with limited noise distribution capability.

The Noise Sharing Plan inserts the four segregated modes at equal Priority 3 replacing the single Runway 16 and 34 modes, enabling noise sharing through alternation. This creates a meaningful intermediate step where operations will utilise both parallel north-south runways simultaneously in a segregated configuration, one dedicated to arrivals and one to departures, without requiring the cross runway.

This improves throughput and provides greater control over noise distribution within the north-south corridor compared to a single runway operation. Crucially, their placement below all cross-runway modes which upholds the conditions of approval by ensuring Runway 09/27 configurations are always preferred where conditions allow.

The non-nominated runway will still be used by larger aircraft that require a longer runway to operate safely, particularly when carrying heavier loads or during certain weather conditions.



Proposed high-capacity day priorities

Priority	Name	Arrivals	Departures
1	SM3	34L	34R
2	SM2	16R	16L
3	Mixed Mode 34	34R and 34L	34R and 34L
4	Mixed Mode 16	16L and 16R	16L and 16R

 Shaded rows represent new modes.

High-capacity modes are utilised only when traffic demand is such that other modes are unable to process the required arrival or departure rates at Melbourne Airport. The decision to implement a high-capacity mode is made by air traffic control on the day-of-operations in response to actual or forecast high traffic demand. When this happens, the normal day priority modes are overridden, and the high-capacity priority order is applied.

The current high-capacity arrangement relies on a single configuration, LAHSO mode using Runways 27 and 34R, as the sole high-capacity option. The draft Noise Sharing Plan introduces four new high-capacity configurations comprising two segregated mode configurations, SM3 and SM2, as Priority 1 and Priority 2 respectively, followed by Mixed Mode operations comprising Mixed Mode 34 (arrivals and departures on 34R and 34L) and Mixed Mode 16 (arrivals and departures on 16L and 16R).

This approach provides four high-capacity configurations across both runway orientations, improving operational flexibility during peak periods. It is proposed that modes with northbound operations (34 direction) be a higher priority option than modes with southbound operations (16 direction) as it directs departures over less populated areas to the north, consistent with noise abatement principles.

“After 10pm respite and noise sharing should be mandatory”



Response: At night when demand is low, there are more opportunities for noise sharing. The Noise Sharing Plan has introduced additional runway operating modes in the priority order to support more noise sharing options.



Proposed night priorities (2300 to 0600)

Priority	Name	Arrivals	Departures
1	SODPROPS	Runway 16R	Runway 34R
2	Cross Runway 1	Runway 16L	Runway 27
3	Cross Runway 2	Runway 27	Runways 27 and 34R
4	SRO 27	Runway 27	Runway 27
	SRO 34R	Runway 34R	Runway 34R
	SRO 16L	Runway 16L	Runway 16L
	SRO 09	Runway 09	Runway 09

Shaded rows represent new modes.

The most significant change to the night mode priority order is the introduction of SODPROPS (Simultaneous Opposite Direction Parallel Runway Operations) as Priority 1, displacing Cross Runway 1 to Priority 2. As previously stated, SODPROPS can only be utilised when specific weather and traffic conditions are met to permit the complex separation procedures required.

Under SODPROPS, Runway 16R will be used for arrivals and Runway 34R for departures simultaneously. This configuration produces a distinct noise distribution pattern compared to cross-runway modes, with arrivals approaching from the north and departures tracking to the north. This directs noise from both arrivals and departures over the less densely populated areas to the north of the airport, providing meaningful noise relief to communities to the south during the most noise-sensitive overnight hours.

Cross Runway 1 and Cross Runway 2 modes are retained and now become Priorities 2 and 3 respectively, maintaining the conditions of approval to maximise Runway 09/27 use within the overall night priority structure.

The current night priority order includes Single Runway 27 (Priority 3), Single Runway 16 and Single Runway 34 (equal Priority 4) and Single Runway 09 (Priority 5). The Noise Sharing Plan maintains this priority order for all single runway modes.

This arrangement continues to support more consistent and accountable decision-making during low-traffic overnight periods when the choice of single runway can meaningfully affect which communities are overflown. The only night mode using the new runway is SODPROPS, all other night operations utilise the existing runways except for emergency operations or when Runway 16L/34R is operationally unavailable.

7.5 Expected Runway Mode usage

Figure 7.1 provides an expected usage range as a percentage of how often each mode is expected to be utilised on average in 2031, reflecting the revised priorities and operational changes aimed at balancing efficiency and community noise relief.

The runway mode usage ranges have been calculated as an average over a 12-month period. While seasonal variations to flight schedules and weather patterns have an impact on demand, for the purposes of this draft Noise Sharing Plan the impact of seasonal variation is considered as $\pm 20\%$ of modelled expected usage.

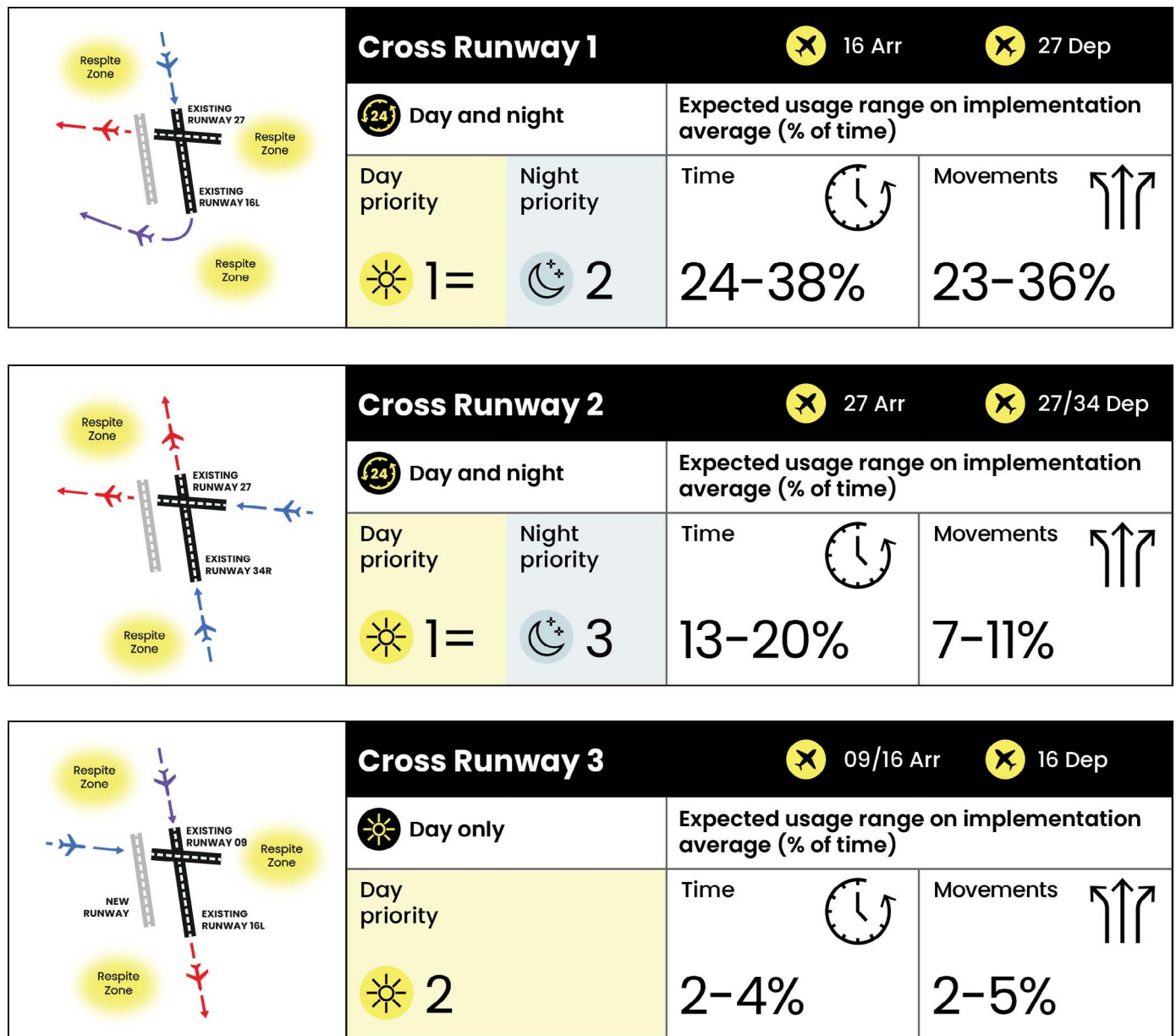


Figure 7.1 Anticipated usage patterns for each runway mode in 2031

	<table><tr><th colspan="2">Mixed Mode 16</th><th>✖ 16L/R Arr</th><th>✖ 16L/R Dep</th></tr><tr><td>☀ Day high-capacity only</td><td colspan="3">Expected usage range on implementation average (% of time)</td></tr><tr><td>High-capacity priority</td><td>Time</td><td>Movements</td><td>↑↑↑</td></tr><tr><td>⌚ 4</td><td>3-6%</td><td>5-8%</td><td></td></tr></table>	Mixed Mode 16		✖ 16L/R Arr	✖ 16L/R Dep	☀ Day high-capacity only	Expected usage range on implementation average (% of time)			High-capacity priority	Time	Movements	↑↑↑	⌚ 4	3-6%	5-8%					
Mixed Mode 16		✖ 16L/R Arr	✖ 16L/R Dep																		
☀ Day high-capacity only	Expected usage range on implementation average (% of time)																				
High-capacity priority	Time	Movements	↑↑↑																		
⌚ 4	3-6%	5-8%																			
	<table><tr><th colspan="2">Mixed Mode 34</th><th>✖ 34L/R Arr</th><th>✖ 34L/R Dep</th></tr><tr><td>☀ Day high-capacity only</td><td colspan="3">Expected usage range on implementation average (% of time)</td></tr><tr><td>High-capacity priority</td><td>Time</td><td>Movements</td><td>↑↑↑</td></tr><tr><td>⌚ 3</td><td>7-12%</td><td>11-17%</td><td></td></tr></table>	Mixed Mode 34		✖ 34L/R Arr	✖ 34L/R Dep	☀ Day high-capacity only	Expected usage range on implementation average (% of time)			High-capacity priority	Time	Movements	↑↑↑	⌚ 3	7-12%	11-17%					
Mixed Mode 34		✖ 34L/R Arr	✖ 34L/R Dep																		
☀ Day high-capacity only	Expected usage range on implementation average (% of time)																				
High-capacity priority	Time	Movements	↑↑↑																		
⌚ 3	7-12%	11-17%																			
	<table><tr><th colspan="2">Segregated Mode 2</th><th>✖ 16R Arr</th><th>✖ 16L Dep</th></tr><tr><td>☀ Day only</td><td colspan="3">Expected usage range on implementation average (% of time)</td></tr><tr><td>Day priority</td><td>High-capacity priority</td><td>Time</td><td>Movements</td></tr><tr><td>☀ 3=</td><td>⌚ 2</td><td>4-8%</td><td>↑↑↑</td></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Segregated Mode 2		✖ 16R Arr	✖ 16L Dep	☀ Day only	Expected usage range on implementation average (% of time)			Day priority	High-capacity priority	Time	Movements	☀ 3=	⌚ 2	4-8%	↑↑↑				
Segregated Mode 2		✖ 16R Arr	✖ 16L Dep																		
☀ Day only	Expected usage range on implementation average (% of time)																				
Day priority	High-capacity priority	Time	Movements																		
☀ 3=	⌚ 2	4-8%	↑↑↑																		
	<table><tr><th colspan="2">Segregated Mode 4</th><th>✖ 16L Arr</th><th>✖ 16R Dep</th></tr><tr><td>☀ Day only</td><td colspan="3">Expected usage range on implementation average (% of time)</td></tr><tr><td>Day priority</td><td>Time</td><td>Movements</td><td>↑↑↑</td></tr><tr><td>☀ 3=</td><td><1-2%</td><td>1-2%</td><td></td></tr></table>	Segregated Mode 4		✖ 16L Arr	✖ 16R Dep	☀ Day only	Expected usage range on implementation average (% of time)			Day priority	Time	Movements	↑↑↑	☀ 3=	<1-2%	1-2%					
Segregated Mode 4		✖ 16L Arr	✖ 16R Dep																		
☀ Day only	Expected usage range on implementation average (% of time)																				
Day priority	Time	Movements	↑↑↑																		
☀ 3=	<1-2%	1-2%																			

Figure 7.1 Anticipated usage patterns for each runway mode in 2031 (continued)

	<table><tr><th colspan="2">Segregated Mode 1</th><th> 34R Arr</th><th> 34L Dep</th></tr><tr><td colspan="2"> Day only</td><td colspan="2">Expected usage range on implementation average (% of time)</td></tr><tr><td>Day priority</td><td></td><td>Time </td><td>Movements </td></tr><tr><td> 3=</td><td></td><td>3-6%</td><td>4-7%</td></tr></table>	Segregated Mode 1		34R Arr	34L Dep	Day only		Expected usage range on implementation average (% of time)		Day priority		Time	Movements	3=		3-6%	4-7%
Segregated Mode 1		34R Arr	34L Dep														
Day only		Expected usage range on implementation average (% of time)															
Day priority		Time	Movements														
3=		3-6%	4-7%														
	<table><tr><th colspan="2">Segregated Mode 3</th><th> 34L Arr</th><th> 34R Dep</th></tr><tr><td colspan="2"> Day only</td><td colspan="2">Expected usage range on implementation average (% of time)</td></tr><tr><td>Day priority</td><td>High-capacity priority</td><td>Time </td><td>Movements </td></tr><tr><td> 3=</td><td> 1</td><td>9-14%</td><td>12-20%</td></tr></table>	Segregated Mode 3		34L Arr	34R Dep	Day only		Expected usage range on implementation average (% of time)		Day priority	High-capacity priority	Time	Movements	3=	1	9-14%	12-20%
Segregated Mode 3		34L Arr	34R Dep														
Day only		Expected usage range on implementation average (% of time)															
Day priority	High-capacity priority	Time	Movements														
3=	1	9-14%	12-20%														
	<table><tr><th colspan="2">Single Runway 09</th><th> 09 Arr</th><th> 09 Dep</th></tr><tr><td colspan="2"> Day and night</td><td colspan="2">Expected usage range on implementation average (% of time)</td></tr><tr><td>Day priority</td><td>Night priority</td><td>Time </td><td>Movements </td></tr><tr><td> 3=</td><td> 4=</td><td><1%</td><td><1%</td></tr></table>	Single Runway 09		09 Arr	09 Dep	Day and night		Expected usage range on implementation average (% of time)		Day priority	Night priority	Time	Movements	3=	4=	<1%	<1%
Single Runway 09		09 Arr	09 Dep														
Day and night		Expected usage range on implementation average (% of time)															
Day priority	Night priority	Time	Movements														
3=	4=	<1%	<1%														
	<table><tr><th colspan="2">Single Runway 16L</th><th> 16L Arr</th><th> 16L Dep</th></tr><tr><td colspan="2"> Night only*</td><td colspan="2">Expected usage range on implementation average (% of time)</td></tr><tr><td>Night priority</td><td></td><td>Time </td><td>Movements </td></tr><tr><td> 4=</td><td></td><td><1%</td><td>1%</td></tr></table>	Single Runway 16L		16L Arr	16L Dep	Night only*		Expected usage range on implementation average (% of time)		Night priority		Time	Movements	4=		<1%	1%
Single Runway 16L		16L Arr	16L Dep														
Night only*		Expected usage range on implementation average (% of time)															
Night priority		Time	Movements														
4=		<1%	1%														

Figure 7.1 Anticipated usage patterns for each runway mode in 2031 (continued)

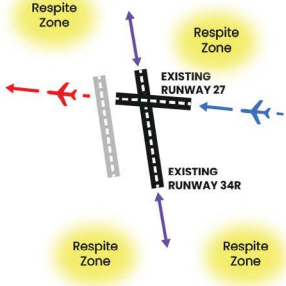
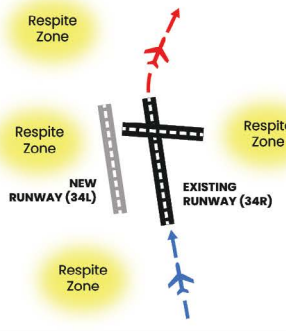
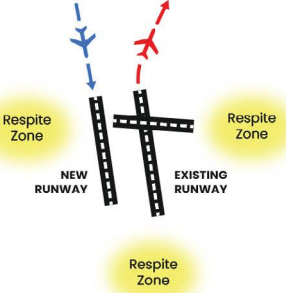
	Single Runway 27			✈ 27 Arr	✈ 27 Dep
	Day and night	Expected usage range on implementation average (% of time)			
	Day priority ☀ 3=	Night priority 🌙 4=	Time 🕒 2-4%	Movements ↑↑↑ 2-5%	
	Single Runway 34R			✈ 34R Arr	✈ 34R Dep
	Night only*	Expected usage range on implementation average (% of time)			
	Night priority 🌙 4=		Time 🕒 2-4%	Movements ↑↑↑ <1%	
	SODPROPS			✈ 16R Arr	✈ 34R Dep
	Night only	Expected usage range on implementation average (% of time)			
	Night priority 🌙 1		Time 🕒 <5%	Movements ↑↑↑ 1-3%	

Figure 7.1 Anticipated usage patterns for each runway mode in 2031 (continued)

* Single Runway 16L and 34R may be used during the night when Runway 16R/34L and/or Runway 27 are unavailable.

7.6 Maximising the use of Runway 09/27

The requirement within the Third Runway MDP conditions of approval to maximise use of Runway 09/27 outside of peak periods, reflects a deliberate noise sharing objective. When nominating Runway 09/27 (whether for arrivals, departures, or both), aircraft are directed into the northern, eastern and western areas around Melbourne Airport rather than concentrating operations exclusively over the more densely populated corridor south of the airport. Therefore, cross-runway modes will be prioritised, to distribute aircraft movements across different flight paths, providing respite for communities that experience the greatest concentration of aircraft activity during parallel runway operations.

The priority order directly implements the conditions of approval by having all cross-runway configurations (Cross Runway 1, Cross Runway 2, and Cross Runway 3) at the top of the day priority list ahead of all other modes. This ensures that air traffic control will default to modes involving Runway 09/27 whenever safety, weather and wind permit, departing from those modes only when operationally justified.

The expected utilisation range of 40%–61% of time throughout the year (upon implementation of the Noise Sharing Plan) for modes using Runway 09/27 indicates that these modes are a key component of the Noise Sharing Plan strategy. This demonstrates that the draft priority mode order is structured to maximise use of the 09/27 runway whenever it is available (subject to safety, traffic demand and weather conditions).



7.7 Approach types

Arrivals to both parallel runways (16 and 34) will have a long and a short approach. The long approach Instrument Landing System (ILS) can be flown by all aircraft and the short approach Required Navigation Performance – Authorisation Required (RNP-AR) by aircraft with GPS navigation technology that are certified for this procedure. To safely move aircraft traffic and coordinate arrivals, the long approach will likely be required more often than the short approach.

The Third Runway MDP assumed that approximately 80% of aircraft would utilise the short approach, explained in Figure 7.2, RNP-AR during high-capacity operations, with the remaining 20% using the longer ILS approach. As part of the draft Noise Sharing Plan, this assumption has been reviewed based on operational experience and contemporary fleet capabilities. The revised assumption is that approximately 20% of aircraft will utilise the short approach (RNP-AR), while approximately 80% will utilise the longer ILS approach, providing a more realistic representation of expected operational outcomes and associated noise exposure patterns.

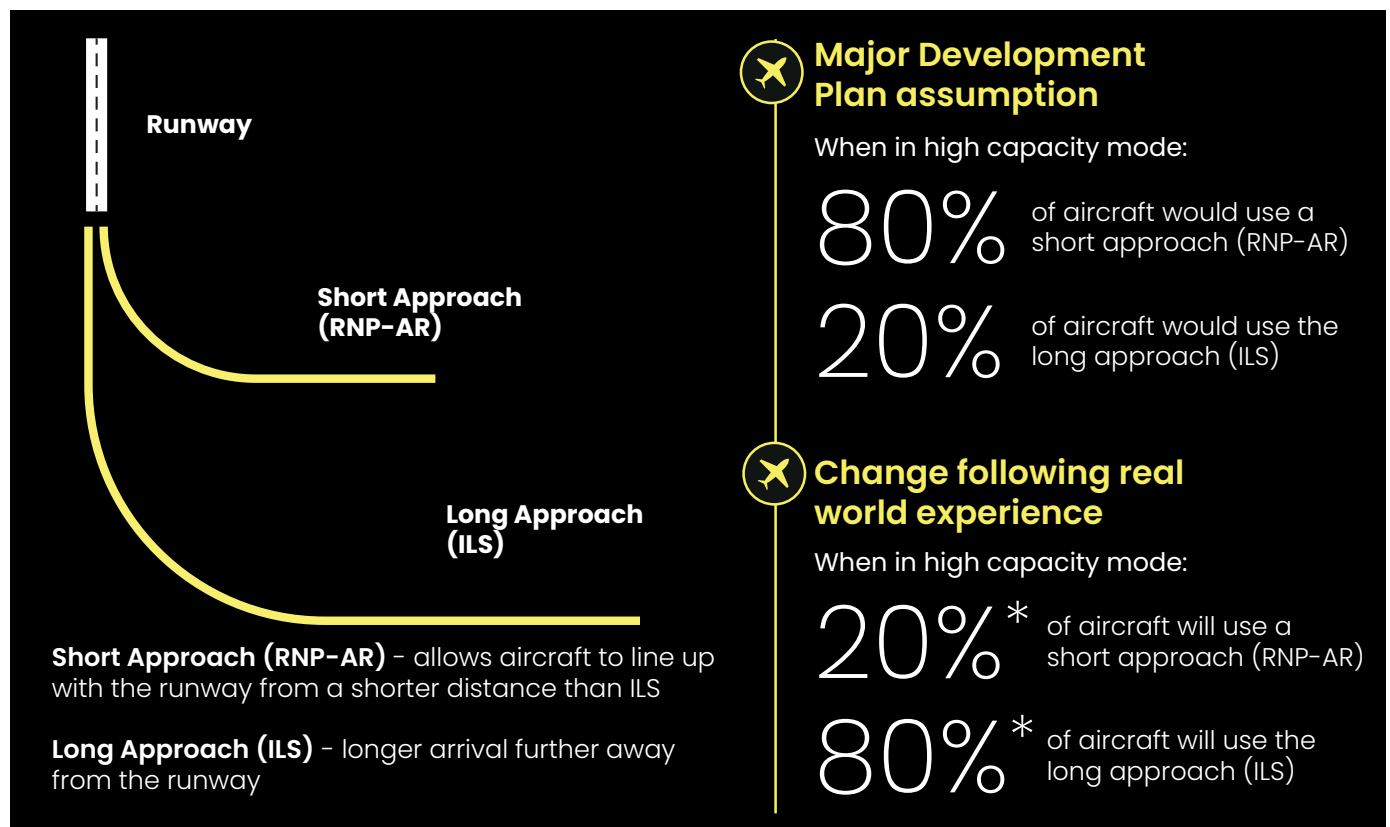


Figure 7.2 Long and short approaches explained

7.8 Runway mode rotations

The sequence of images in Figure 7.3 below illustrate how runway operations could potentially rotate throughout the day from noise preferred configurations to capacity driven modes in line with the priority mode framework.

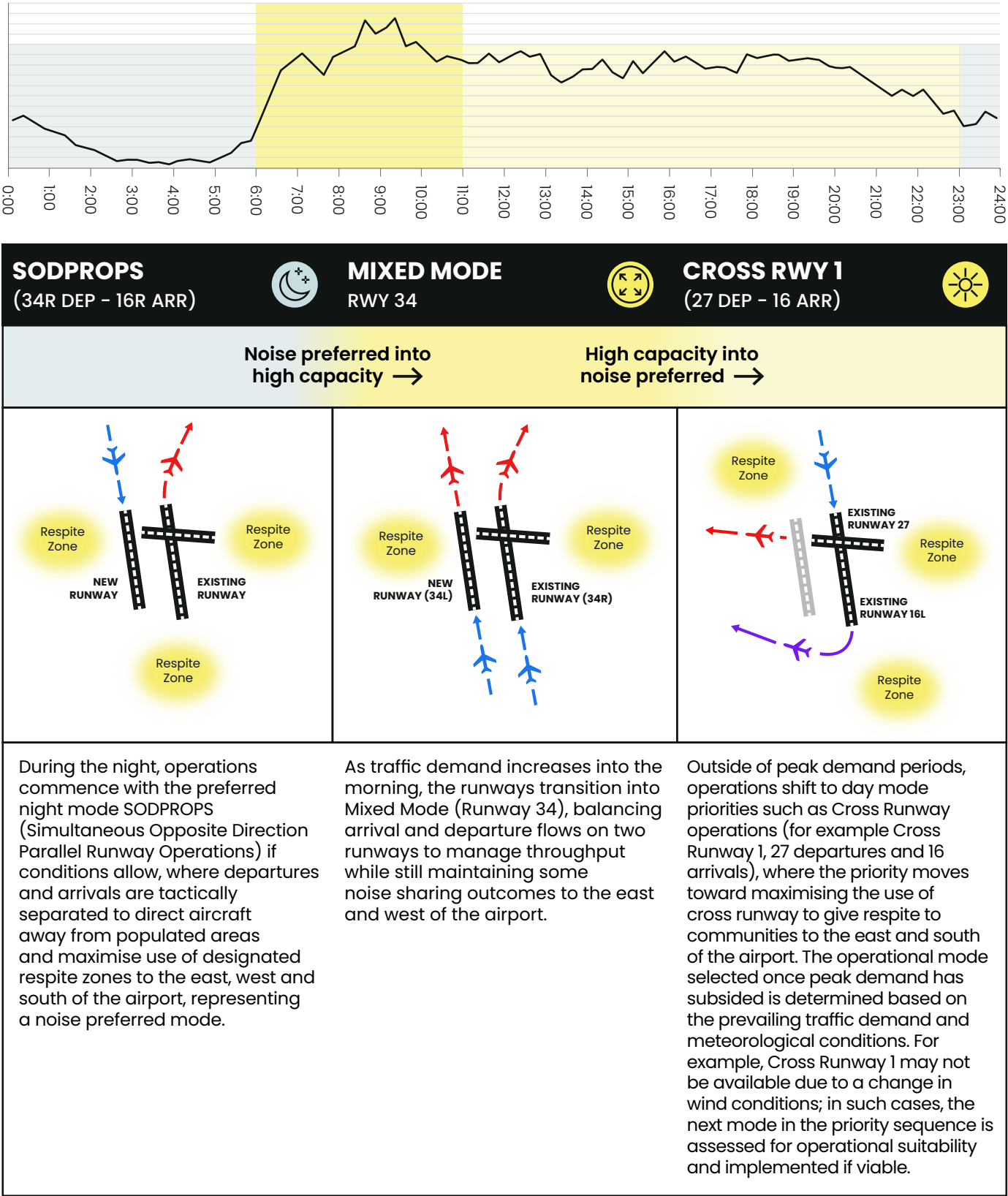


Figure 7.3 Example of runway mode rotation (typical day)

Figure 7.4 demonstrates the hierarchy of runway mode transitions throughout a typical day at Melbourne Airport. It visually outlines how operational priorities shift from noise-preferred modes, such as SODPROPS during the night, to capacity-driven configurations like Mixed Mode during peak traffic, and finally to cross-runway operations when demand subsides.

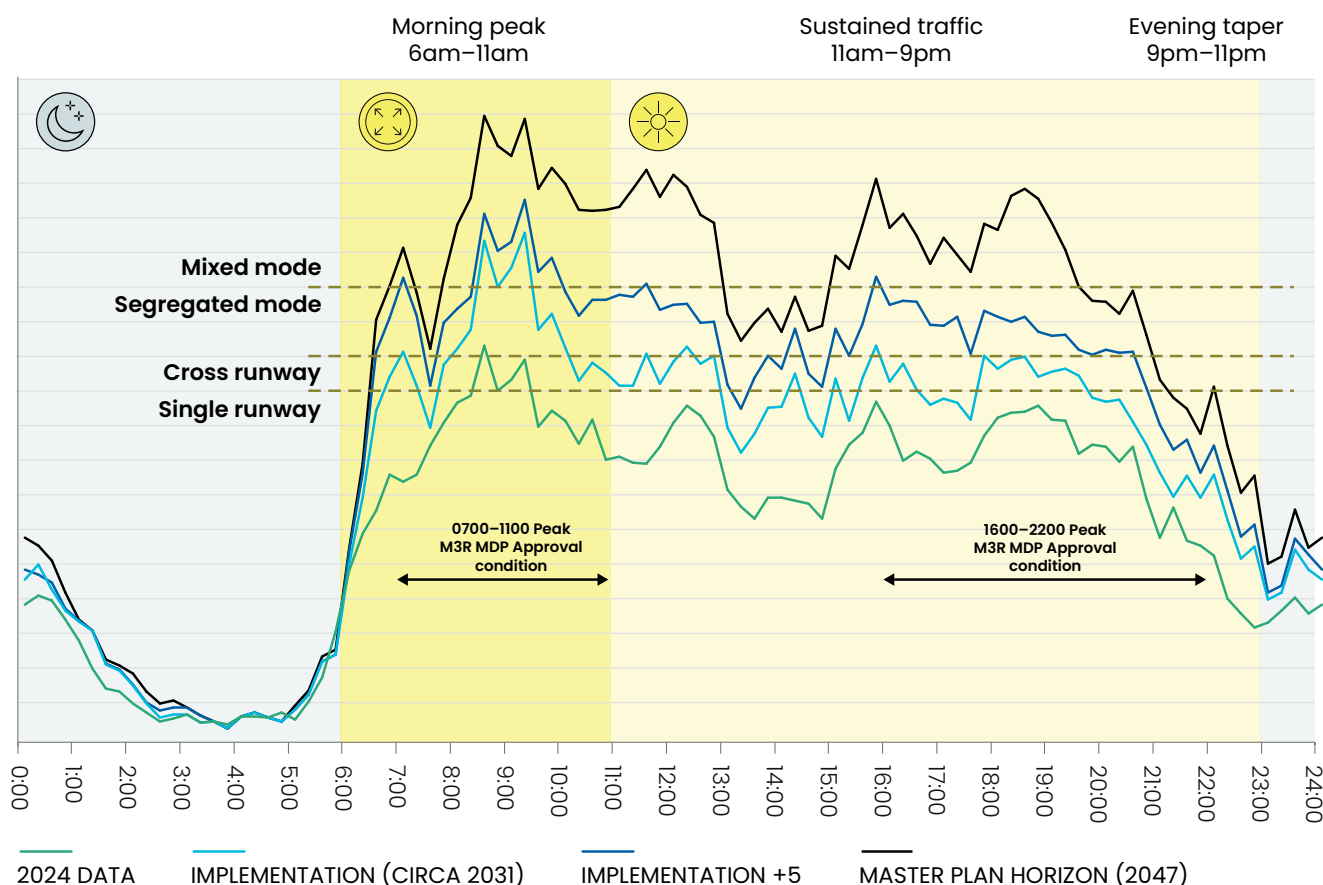


Figure 7.4 Hierarchy of runway mode transitions (typical day)

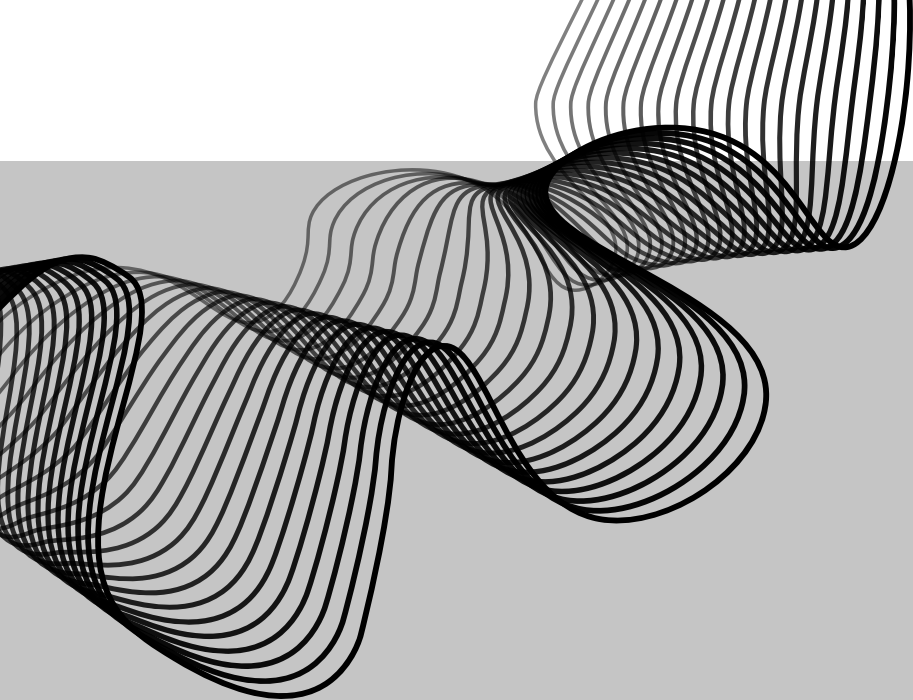
7.9 Future tactical management of aircraft operations

The introduction of the new runway does not remove the need for air traffic controllers to tactically manage aircraft movements. While the flight paths presented in this document describe the standard routes that aircraft are designed to follow, day-to-day operations will continue to require controllers to make real-time adjustments to maintain safety, efficiency and orderly traffic flow.

As occurs today and outlined in Section 4.4, controllers may provide individual instructions, known as radar vectors, that direct an aircraft along a customised route rather than the published flight path. These instructions are used to safely integrate aircraft with differing performance characteristics, manage traffic levels, respond to weather conditions and maintain appropriate separation between aircraft.

For departing aircraft, radar vectoring is most commonly applied to smaller, non-jet aircraft, which often require tailored instructions to integrate safely with other traffic. For arriving aircraft, controllers may provide radar vectors to establish appropriate spacing between aircraft before landing.

As a result, some aircraft may be observed tracking slightly differently from the flight paths shown in this document. This is a normal and expected part of airport operations and will continue following the introduction of the new runway. These variations reflect the dynamic nature of air traffic management and should not be interpreted as a change to the underlying flight path design.



8

Noise abatement procedures

8. Noise abatement procedures

Abatement measures support, but cannot deliver, overall noise outcome change

- Procedures reduce impacts at the margins but are constrained by operational conditions
- Meaningful change relies on combining noise abatement with broader noise sharing strategies

Noise Abatement Procedures are operational measures used at Australian airports to reduce the impact of aircraft noise on surrounding communities while maintaining safety and operational efficiency. They form part of the Aeronautical Information Publication (AIP) suite of documents used by pilots and air traffic controllers.

Noise Abatement Procedures are established at most of the larger airports in Australia and are generally mandated for all jet aircraft as well as other aircraft exceeding 5,700 kilograms. The procedures may be incorporated into arrival and departure operations in several ways:

- **Standard Instrument Departures (SIDs)** – preferred flight paths for departing aircraft including altitude and speed requirements to minimise the impact of noise over the ground
- **Standard Instrument Arrivals (STARs)** – preferred flight paths for arriving aircraft, also including altitude and speed requirements to minimise the impact of noise over the ground
- **Preferred runway operations** – specific runway operating modes nominated where operationally possible to maximise the use of preferred flight paths
- **Take-off requirements** – specifying the use of amended take-off procedures for larger aircraft off specific runways, involving changes to the altitudes at which thrust reduction and acceleration take place

Noise Abatement Procedures form an integral component of the draft Noise Sharing Plan, underpinning both environmental management and associated reporting requirements. Future reporting parameters for the Noise Sharing Plan are detailed in Section 9.1.

Runway alternation

For the purposes of the draft Noise Sharing Plan, runway alternation is defined as the switching between segregated runway operating modes to distribute aircraft noise exposure between communities and provide periods of respite. Alternation occurs between Segregated Mode 1 and Segregated Mode 3 using runways 34L and 34R, and between Segregated Mode 2 and Segregated Mode 4 using runways 16L and 16R.

Alternation does not refer to transitions between fundamentally different mode types, which represent standard operational changes driven by safety, traffic demand, wind and weather conditions, or other operational requirements rather than a noise sharing intent.

Where the mode priority order determines the preferred runway configuration, alternation governs how frequently and on what basis air traffic control will rotate between like configurations when an operational choice is available. The intent is to ensure that no single community experiences a continuous and unrelieved noise burden over a defined period.

8.1 Using runway alternation

During peak periods (defined as 0700 to 1100 and 1600 to 2200 hours daily), runway configuration is primarily driven by the need to accommodate higher traffic volumes and maintain efficient traffic flow. Generally during these peak periods, high-capacity modes will be required.

Conversely, during off-peak periods lower traffic demand provides greater flexibility in runway allocation and mode selection. This may also be the case within the defined peak-periods where traffic demand may reduce for any number of reasons.

A key consideration in the application of alternation between like-modes is that operations may, at times, preclude the use of the east-west runway for extended periods due to prevailing wind conditions. In these circumstances, alternation between like segregated modes becomes particularly important as it provides an opportunity to distribute aircraft noise and deliver respite to communities during periods of lower demand.

Period	Suggested Maximum Continuous Time
High traffic demand	No maximum - demand led
Low traffic demand	4 hours

It is recommended that the decision to alternate between like segregated modes considers:

- **Mode prioritisation** – the preferred segregated modes (SM2 and SM3) will be prioritised during high demand periods requiring the use of high-capacity modes to maintain operational efficiency. Outside of these periods and subject to operational, safety, weather and air traffic management requirements, operations will prioritise a transition to the alternate segregated modes (SM1 and SM4) to provide opportunities for noise sharing between communities affected by segregated runway operations.
- **Maximum period operating within a single segregated mode** – subject to safety, operational, weather and air traffic management requirements, alternation to a like segregated mode be implemented after a defined period to ensure that noise respite is provided at least once between the morning and evening peak traffic periods, reducing the potential for aircraft noise to remain concentrated over the same communities.

The suggested 4-hour limit during low demand periods has been chosen for the following reasons:

- Regardless of the traffic demand during the defined peak periods, alternation will always occur at least once during the day (where weather conditions permit) as there is a 5-hour period of forecast low demand between the morning and evening peak periods.
- As alternation between modes adds operational complexity, excessive mode changes driven by an alternation schedule less than 4-hourly will add unnecessary operational complexity and risk.

“Provide a published, predictable roster of runway modes and respite periods so communities know in advance when they will get breaks from noise.”



Response: Runway operating modes depend on safety, weather conditions and operational demand, making it difficult to predict which modes will be used at any given time.

To provide some certainty, the Noise Sharing Plan shows how often each runway is expected to be used over a year. It also recommends that segregated modes will not be used for more than four hours during periods of low demand to provide some respite for people north and south of the airport.

8.2 Alternation for Segregated Modes

Community feedback received during consultation was a primary driver in shaping the alternation approach for segregated modes. Across all zones, the most consistently expressed preference was not simply for noise reduction in the short term, but for fairness and regular periods of respite over time. Respondents from communities beneath segregated mode flight paths clearly indicated that if segregated operations are required, alternation throughout the day was preferred over sustained use of a single segregated mode for an entire operational period.

This feedback reflects a more balanced principle: where noise cannot be avoided, it should be shared. Sustained use of a single segregated mode concentrates noise over the same communities for hours at a time, producing the pattern of extended exposure that community members identified as the least preferred. Intra-day alternation breaks this pattern by introducing structured change between segregated mode configurations throughout the day when wind and weather conditions allow.

Runway 34 (northerly wind) – Segregated Modes 1 and 3

Figure 8.1 below illustrates how alternation can be achieved in practice for normal operations during northerly winds using Runway 34. Using Runway 34, Segregated Mode 1 and Segregated Mode 3 represent like-modes between which alternation occurs. Figure 8.1 shows that in Segregated Mode 1, arrivals are conducted on Runway 34R and departures on Runway 34L. In Segregated Mode 3, the configuration is reversed, with arrivals on Runway 34L and departures on Runway 34R. By periodically rotating between these two modes, communities to the north and south of the airport share the noise burden of departing and arriving aircraft rather than one corridor bearing continuous exposure. As detailed in Section 4.6, certain aircraft performance requirements may necessitate the use of the longer runway for departures in Segregated Mode 1. As a result, some aircraft may require departures from Runway 34R in this mode.

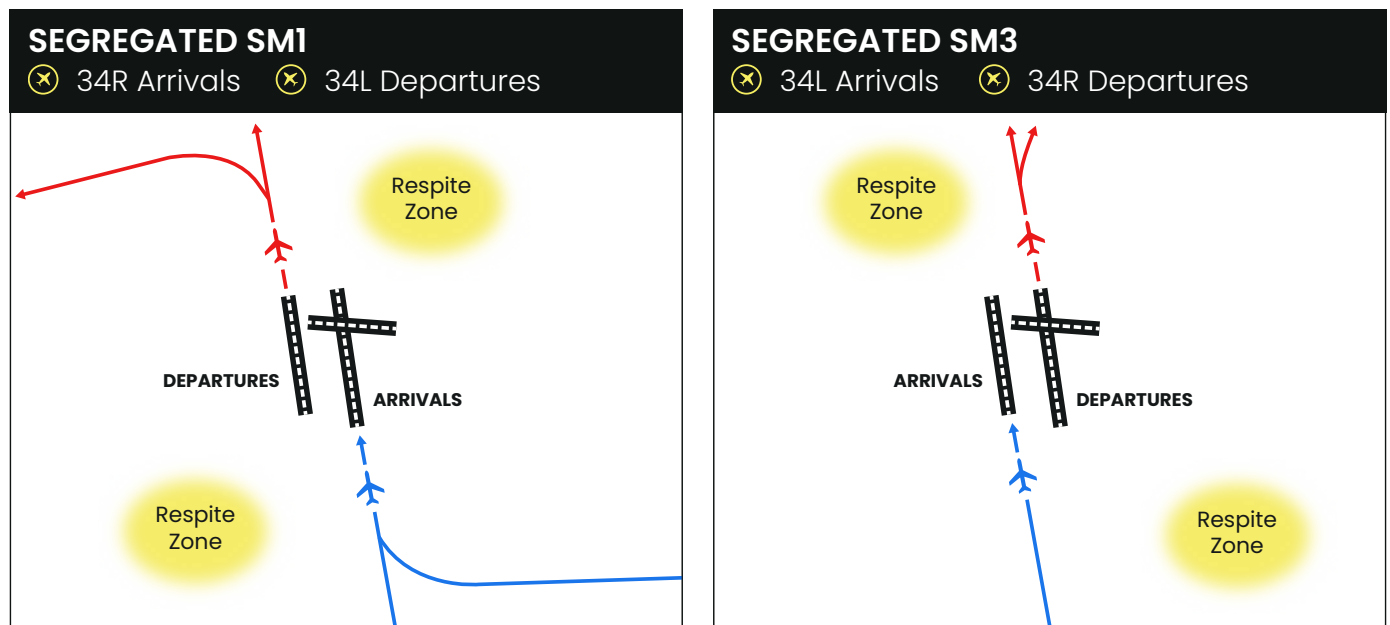


Figure 8.1 Northerly winds and use of SM1 and SM3

Runway 16 (southerly wind) – Segregated Modes 2 and 4

Figure 8.2 illustrates how alternation can be practically achieved for normal operations during southerly winds using Runway 16. Segregated Mode 2 and Segregated Mode 4 represent like-modes between which alternation occurs. In Segregated Mode 2, arrivals are conducted on Runway 16R and departures on Runway 16L. In Segregated Mode 4, the configuration is reversed, with arrivals on Runway 16L and departures on Runway 16R. Again, as detailed in Section 4.6, certain aircraft performance requirements may necessitate the use of the longer runway for departures in Segregated Mode 4. As a result, some aircraft may require departures from Runway 16L in this mode.

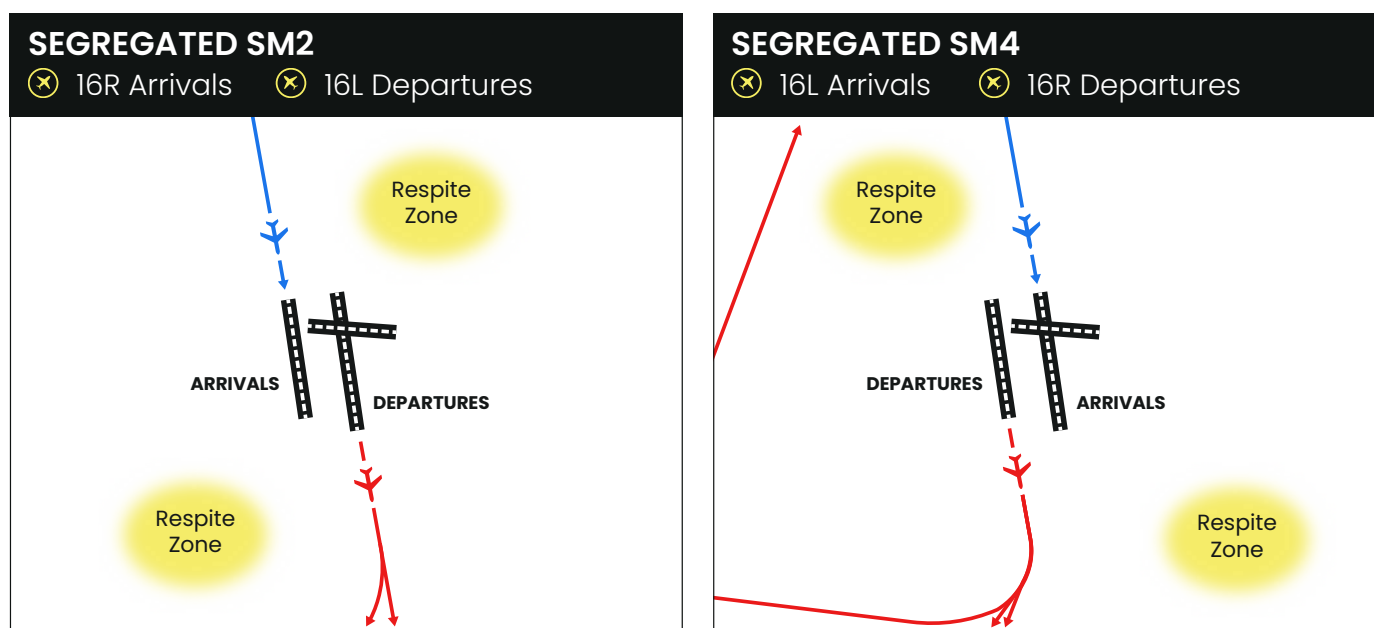
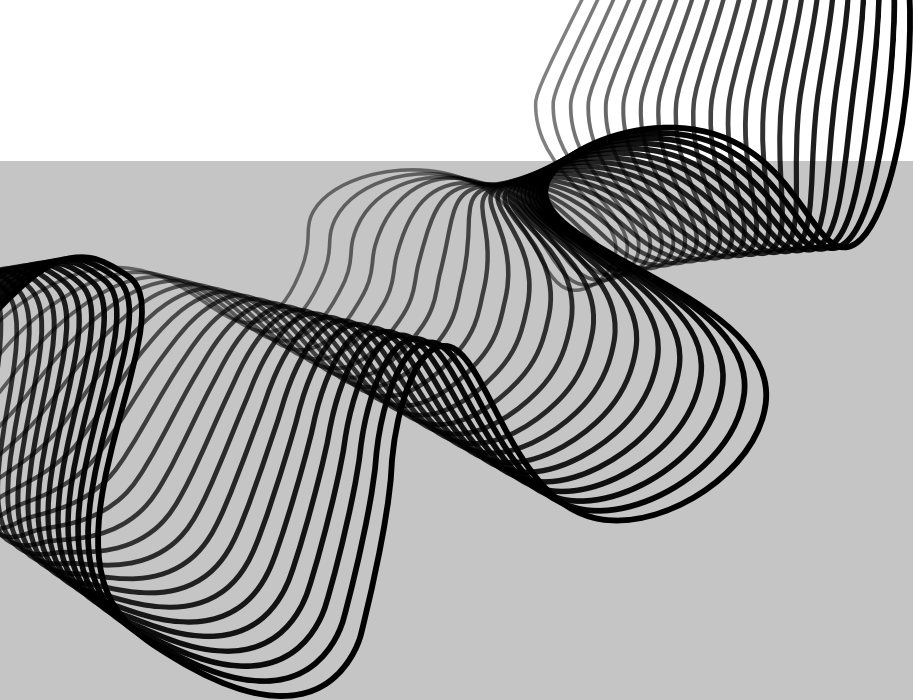


Figure 8.2 Southerly winds and use of SM2 and SM4





9

Measuring Noise Sharing Plan performance

9. Measuring Noise Sharing Plan performance

Transparency is essential to demonstrate delivery and build trust

- Clear, public reporting will track performance against noise sharing objectives
- Ongoing measurement creates accountability and supports continuous improvement

9.1 Reporting

Airservices Australia currently develops and publishes several industry and publicly available reports detailing network planning parameters and performance outcomes. These include:

- Australian Aviation Network Overview Report – developed and published online monthly, the report covers such items as economic factors influencing network performance, aircraft noise, aircraft emissions, industry performance, and Air Traffic Flow Management (ATFM) factors including delay metrics
- Aircraft in your neighbourhood website – updated monthly, the website reports on such items as noise monitoring, Noise Abatement Procedure utilisation and adherence to preferred flight paths for arrivals and departures
- WebTrak – Live or historical monitoring of flight activities and noise major airports

The implementation of Melbourne's third runway brings with it opportunities for reporting on a new set of criteria specific to Melbourne Airport. These criteria will be identified and developed as part of the draft Noise Sharing Plan engagement process, and once agreed upon, will be considered as part of the approval process.

Future reporting parameters for consideration:

The following has been developed as an initial framework for discussion and consultation in the next phase of community engagement. Potential reporting parameters are listed below and expanded on in following sections.

- Runway mode usage:
 - Planned runway modes based on forecast weather and expected traffic demand (i.e. like-modes for alternation, cross-runway modes, high-capacity modes, night specific modes etc.)
 - Actual runway modes utilised on the day-of-operations
 - Percentage use of each runway mode over a specified period (weekly, monthly etc.)
 - Comparison to forecast mode utilisation metrics
 - Commentary on exceptions
- Segregated mode alternation:
 - Number of actual alternation events between like segregated modes
 - Time within each alternation mode
 - Percentage use of each like segregated mode over a specified period (weekly, monthly etc.)
 - Exceedances of maximum alternation period
 - Commentary on alternation decisions
- Noise sharing:
 - Graphical display of runway modes used on the day-of-operations

9.2 Runway mode usage

Section 7 outlines runway mode priorities based on time of day and traffic demand and provides forecast runway mode usage metrics for each mode following new runway implementation. Comparison of actual runway mode usage against these forecasts over a reporting period could provide the community with greater transparency on how the runway system has been operated, explain the operational factors that influenced runway mode selection, and demonstrate how opportunities for noise sharing have been implemented. Any future reporting framework would need to recognise that runway mode usage is influenced by a range of factors, including weather conditions, safety, aircraft demand and operational requirements.

“There should be regular public reporting”



Response: This section of the Noise Sharing Plan outlines how Airservices Australia will monitor and publicly report on the Noise Sharing Plan. Airservices Australia publishes real time noise information collected through noise monitoring stations across Melbourne online via Web Trak and Aircraft in your Neighbourhood.



9.3 Segregated mode alternation

As detailed in Section 8.2, the new parallel runway enables like segregated runway operating modes to be used in alternation. Because these are ‘like-modes’, handling similar traffic levels under consistent weather conditions, they are operationally suited to alternation from one to the other during periods of lower demand.

Alternation between like-modes during periods of high demand is not possible due to the associated additional increase in workload and complexity for both pilots and air traffic control. However, outside of these periods where aircraft numbers are lower, alternation can be implemented without the increased risk associated with these high demand periods. Data related to the use of alternate modes during these lower demand periods can be included as reporting metrics to demonstrate how noise sharing principles related to alternate modes have been utilised operationally. This data may include parameters such as the amount of time in each like-mode during low demand periods, the number of alternation events, and the maximum continuous time that a particular mode was in use before alternation.

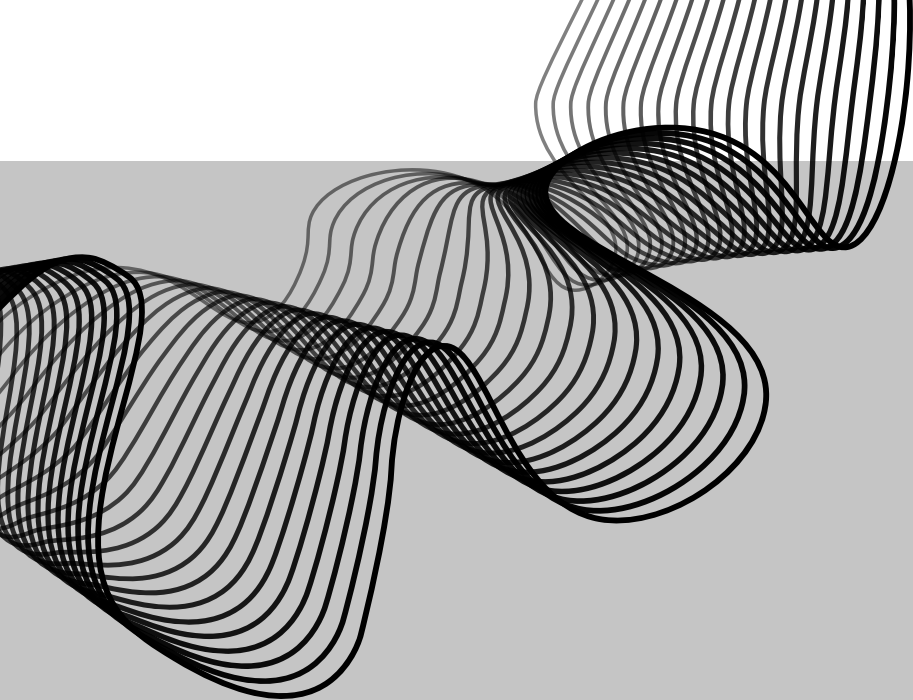




virgin australia



WA



10

Flight paths by geographic area

10. Flight paths by geographic area

Noise impacts will be distributed, not removed, across Melbourne

- Different communities will experience varied changes in exposure and intensity
- Clear communication of these differences is critical to managing expectations

The development of the airspace concept supporting the draft Noise Sharing Plan has been informed by a range of operational, environmental and community considerations. These factors have shaped both the selection of runway operating modes and the way in which they are applied in practice.

This section outlines the design considerations that have influenced the flight path and airspace design, including operational requirements such as safety, capacity and airspace complexity, alongside environmental and community feedback received during consultation. It also describes the changes made to proposed flight paths since the first round of engagement and the factors that informed those refinements.

“Noise levels by decibels is expected for people in flight paths shown”



Response: Aircraft noise levels vary depending on your location. To help you understand what this means for you, an interactive tool on the Melbourne Airport Major Projects hub is available. Simply enter your address to see the likely noise levels (in decibels) over time.



10.1 Around the airport

The location of the new parallel runway at Melbourne Airport is 1,311 metres to the west of the current north-south runway. Runway orientation and location are the primary constraints on flight path design, as all arriving aircraft must ultimately align with the runway to land safely.

In practice, this requires aircraft to be established on the runway centreline typically between 15 and 30 kilometres from the airport and maintain a stable descent profile of approximately 3 degrees. These requirements are defined by international aviation standards, including ICAO Doc 8168 (PANS-OPS), which sets the criteria for stabilised, runway-aligned approach operations. As a result, flight paths cannot be designed to avoid all communities, and some areas will necessarily experience more consistent overflight where aircraft are aligning with the runway and descending for landing.

These constraints are fundamental to safe aircraft operations and limit the extent to which flight paths can be modified. An exception to the requirement for runway-aligned flight paths exists during visual approaches, where pilots manually manoeuvre the aircraft to align with the runway. However, visual approaches are subject to strict operating criteria and are not suitable for all aircraft types or operating conditions.

10.2 Northwest

Departures

The township of Bulla is located close to the northern end of the new runway and sits slightly west of the extended centreline of runway 34L. As a result, departure flight paths are designed to avoid turning overhead Bulla, with aircraft instead tracking to a position north of the township before commencing a left turn (Figure 10.2).

This turn will generally be limited to smaller non-jet aircraft, although in some cases air traffic control may require larger jet aircraft to use it for operational reasons.

The standard departure path for jet aircraft will be to track north of the Sunbury township before turning towards their destination. A consideration in the placement of this flight path was to avoid Sunbury, while remaining vertically separated below higher altitude arrivals above. If this departure was to move any further to the north it would add more constraining departure climb gradients.

An immediate right turn is not possible due to simultaneous operations on the existing north-south runway to the east.

Arrivals

Arriving aircraft onto Runway 16R are required to be aligned with runway centreline precluding the ability to introduce turns during the final phase of flight. This arrival cannot be moved to any other location (Figure 10.2).

“Go around towns, not through the centre”



Response: To provide more opportunities for respite for communities close to the airport the draft Noise Sharing Plan recommends:

- Departure flights will avoid turning over Bulla
- Departure flights will track north of Sunbury before turning to their destination.

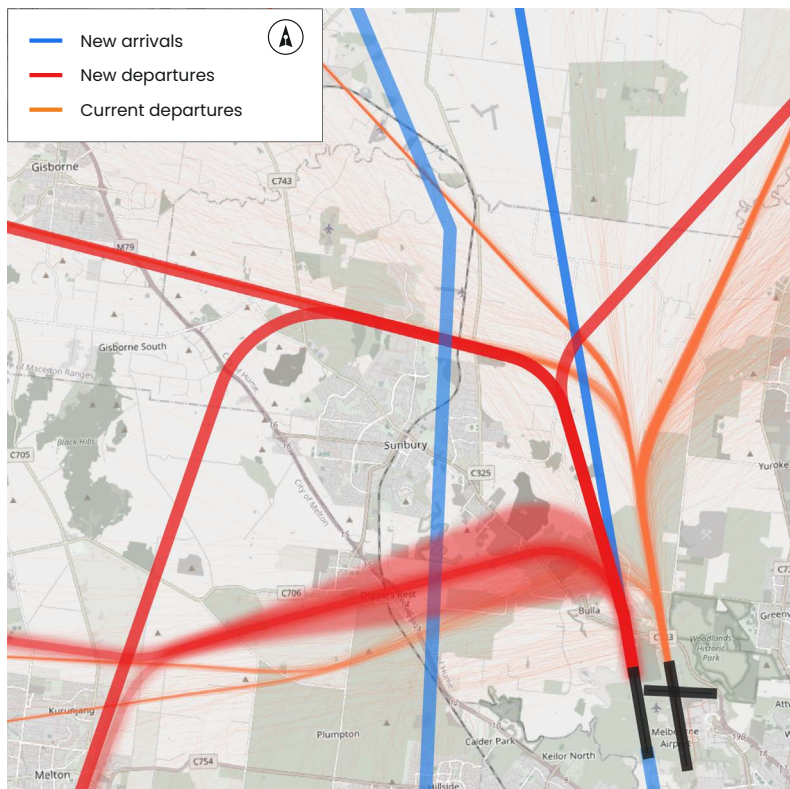


Figure 10.2 Northwest arrivals and departures

10.3 Northeast

Departures

Due to the new runway being positioned 1,311 metres to the west of the current runway, operations at Melbourne Airport will be required to align with international standards for 'Independent Parallel Runway Operations'. These standards require a turn away from the parallel runway through a minimum of 15° at a prescribed distance from the departure end of the runway (Figure 10.3).

Arrivals

Arriving aircraft are required to be aligned with runway centreline precluding the ability to introduce turns during the final phase of flight (Figure 10.3).

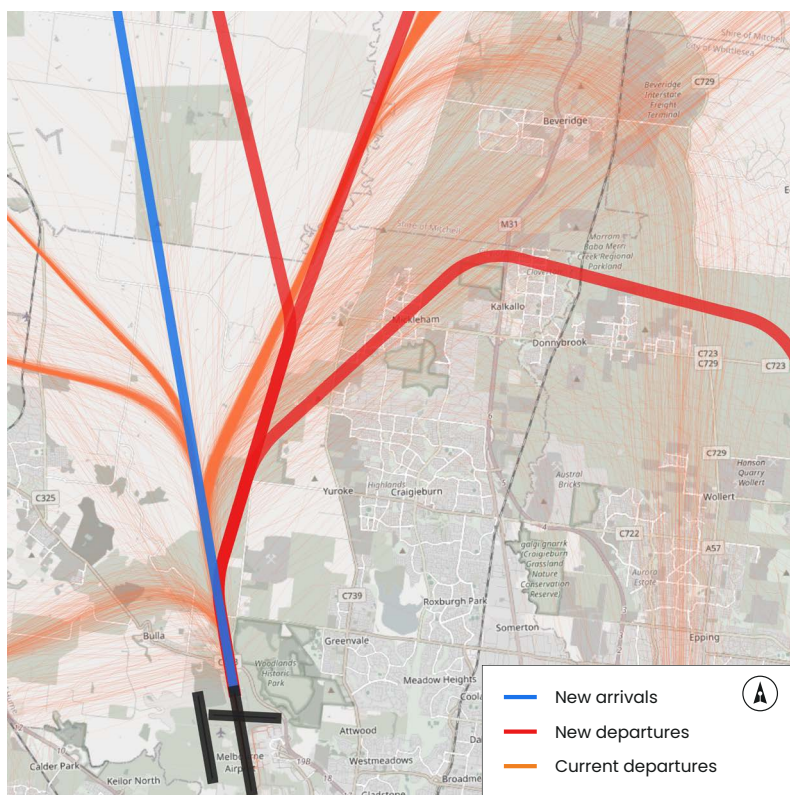


Figure 10.3 Northeast arrivals and departures

10.4 North

Flight paths in the vicinity of Romsey, Monegeetta, Rochford and Forbes areas are changing from the first phase of consultation on the draft Noise Sharing Plan, and what was published in the Third Runway MDP.

Industry feedback mostly from general aviation operators and aerodrome operators during Phase 1 consultation identified that lowering the airspace from 3,500 feet to 2,500 feet around Romsey, 20 NM (37km) north of Melbourne Airport, would be detrimental to general aviation operations and could reduce margins of safety for pilots in the area. In adverse weather, the lowering of controlled airspace would give aircraft limited opportunity to avoid low level clouds given the proximity of rising terrain around Mt Macedon. The reduction in airspace also impacted a number of smaller aerodromes in this area that are used by a range of operators.

In response, the Mixed Mode Runway 16 design has been revised to include a new set of arrivals joining Runway 16L at 4,000 feet instead of 3,500 feet. This change significantly reduces the impact of lowering controlled airspace and would allow general aviation operators to continue using the area without the risks identified during Phase 1 consultation.

The flight paths are moving from the teal to the blue paths, the main difference being that they are another 500 feet (152 metres) higher than the previous design (Figure 10.4). There has also been some simplification of tracking to allow aircraft to follow a runway aligned straight in track to minimise turns in safety critical phases of flight.

In addition to the ILS arrival procedures described above, RNP-AR approaches will also be developed for runway 16, accommodating aircraft arriving from the east, west, and south. RNP-AR procedures use a shorter final approach segment compared to ILS and are operationally preferred where traffic conditions permit. However, due to the increased procedural complexity of managing mixed-mode operations, limited use of RNP-AR during peak traffic periods. An RNP-AR arrival for southerly traffic is already available on runway 16L.

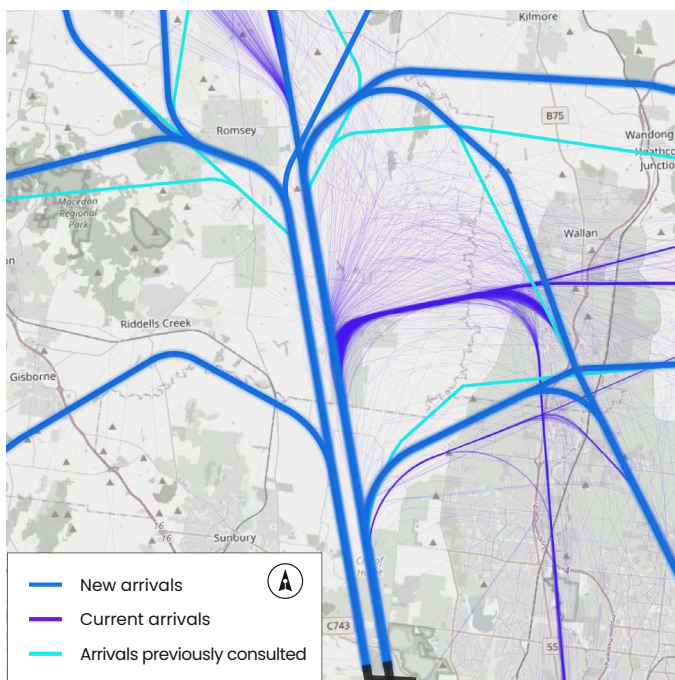


Figure 10.4 North arrivals (southerly winds)

“...changes will affect general aviation training capacity and operational flexibility.”



Response: To improve access and safety for smaller general aviation aircraft, the Mixed Mode RWY16 design arrivals joining Runway 16L have increased 500ft, from 3,500 feet, to 4,000ft.

10.5 East

As part of the Runway 27 Eastern Extension project under a future MDP, the landing threshold for Runway 27 will be moved to the east by 210 metres (Figure 10.5). Updates to existing flight paths will be required to align with required standards associated with delivery of this new infrastructure. This includes changes to some flight paths to the east of the airport associated with Runway 27.

Preliminary analysis indicates that some arrival paths from the east will need to be updated to address a technical difference from current international aviation regulations. This would involve shifting the arrival paths further than the required 210 meters to help aircraft establish a stable approach earlier and support efficient operations.

The change impacts suburbs, such as Epping, Kingsbury, Heidelberg West (Figure 10.6).



Figure 10.5 Runway 27 Eastern Extension

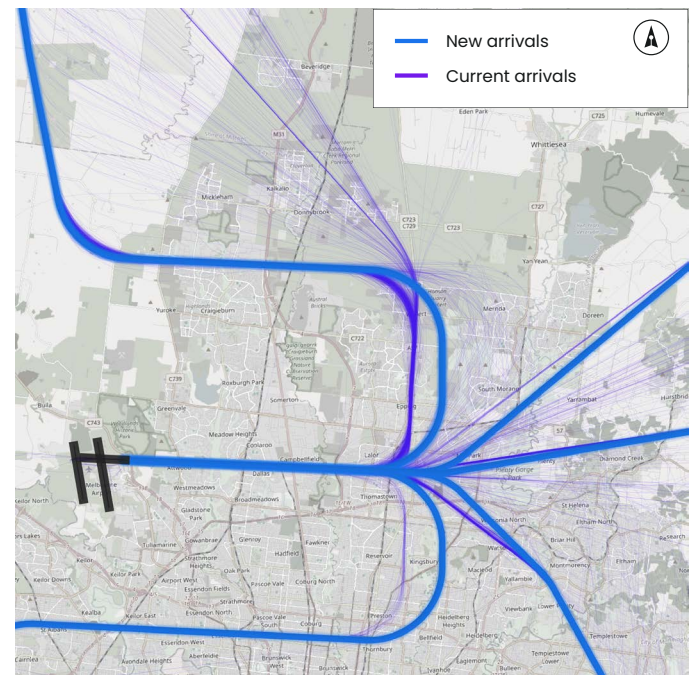


Figure 10.6 East arrivals (westerly winds)

10.6 Southeast

Residents in Melbourne's south eastern suburbs will begin to experience new aircraft overhead during busy arrival periods when winds are blowing from the north. This section explains where these new flight paths are located and the reasons behind their final design.

"Change flight paths to go over Port Phillip Bay before turning east/west"



"Stay as high as possible"

Response: The draft Noise Sharing Plan suggest shifting flight paths further south over Port Phillip Bay.

This change will allow some northbound departures to climb earlier and reach higher altitudes, helping to reduce noise for nearby communities.

The original Third Runway MDP proposed arrival tracks shown in teal, which were designed to begin their instrument approach at 4,000 feet over Port Phillip Bay (Figure 10.7). During Phase 1 community and stakeholder consultation, feedback from general aviation operators highlighted that the original track positions and associated airspace would conflict with their existing low-level operations in the Bay. In response to this, the arrival tracks were redesigned to better accommodate all airspace users.

The updated design shifts the arrival tracks for ILS arrivals approximately 6 kilometres further south into the bay and raises the minimum altitude at that point from 4,000 feet to 5,000 feet, a vertical increase of over 300 metres. This change means arriving aircraft will be at a greater height as they overfly populated areas of the southeastern suburbs, compared to what was originally proposed.

In addition to the ILS arrival procedures described above, RNP-AR approaches will also be developed for Runways 34L and 34R, accommodating aircraft arriving from the north and east. RNP-AR procedures use a shorter final approach segment compared to ILS, and are operationally preferred where traffic conditions permit. However, due to the increase procedural complexity of mixed mode operations, there will limited use of RNP-AR arrivals during peak traffic periods. Using highly precise satellite-based navigation to follow a defined curved approach path that can improve alignment with the runway, enhance operational efficiency, and provide an additional arrival option during suitable weather and traffic conditions. This type of flight path can only be used by aircraft with the required tracking equipment.

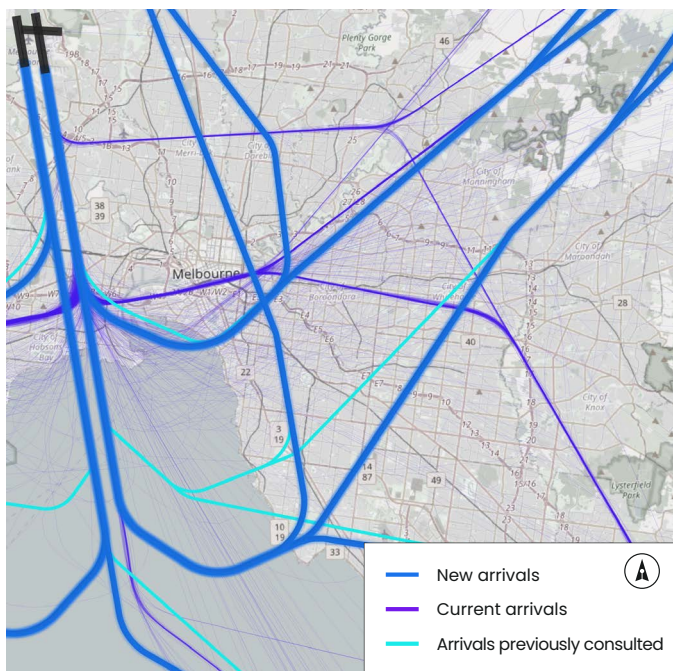


Figure 10.7 Southeast arrivals (northerly winds)

10.7 Inner South

Arrivals

Since Phase 1 consultation, the arrival tracks used in northerly wind conditions for all modes that use 34R have been re-designed.

Preliminary analysis indicates that arrival paths for the existing north-south runway will need to be updated to address a technical difference from current international aviation regulations. As the existing flight paths were the basis for the new north-south runway flight paths in segregated mode, the flight paths in the Third Runway MDP would also need to be updated.

“Fly higher”

“Adjust altitude”

Response: Moving the flight path further south over the Bay increases aircraft altitude over Mentone and Cheltenham, reducing noise impacts for communities below.

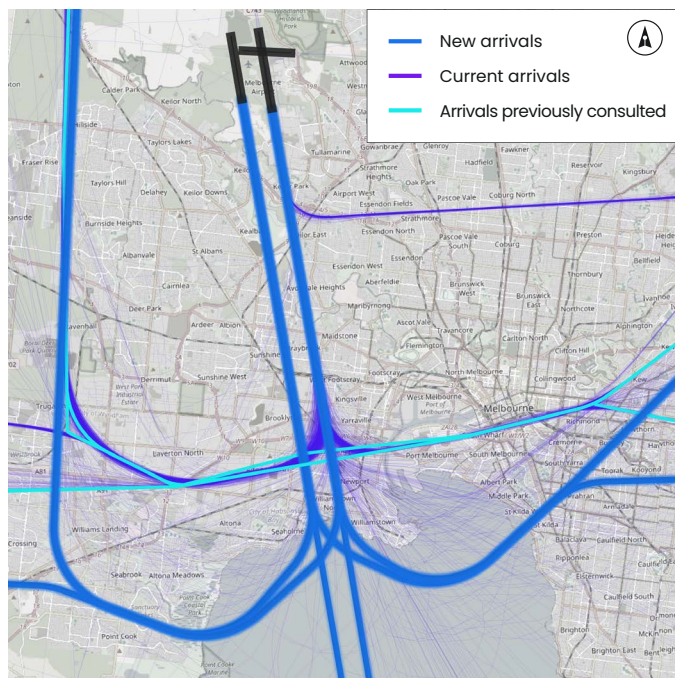


Figure 10.8 Inner south arrivals (northerly winds)

The updated paths are now proposed to join the instrument approach at 3,000 feet, up from 2,500 feet previously, and aircraft now join the approach centreline at a shallower 60-degree angle rather than the previous 90-degree join. Together, these changes have shifted the arrival tracks further south over Port Phillip Bay (Figure 10.8).

The shallower joining angle and increased approach altitude bring meaningful benefits for both the community and aviation operations:

- From a community perspective, the most significant outcome is that the more efficient flight path geometry allows for air traffic control to maintain a higher arrival rate, meaning the noise sharing alternating segregated modes can be sustained for longer periods before traffic volumes require a switch to full Mixed Mode operations. In addition, the increased approach altitude results in aircraft operating at higher heights over areas to the east and west, which can assist in moderating noise impacts in those locations.
- From an aviation perspective, the higher controlled airspace boundary that results from lifting the arrival altitudes allows general aviation aircraft operating in the area to fly at greater heights than was previously possible.

These changes also have flow-on effects for other traffic across the broader Melbourne Basin. By extending the arrival paths further into Port Phillip Bay to gain additional height, greater vertical separation is created between arrivals and departing aircraft. This enables some departures to the north of Melbourne to climb to higher altitudes earlier in their flight than the previous design permitted.

Departures

When winds are blowing from the south, departures will head south away from Melbourne Airport across the inner southern suburbs. This applies across several runway operating modes, including Segregated Mode 1, Segregated Mode 3, and Mixed Mode 16 as well as cross runway and single runway modes utilising Runway 16. The map diagram below shows current Runway 16 departure tracks in orange, with the proposed new tracks overlaid (Figure 10.9) in red.

Aircraft departing from the new runway will make their first turn in the vicinity of Keilor Downs and St Albans. The spread of traffic from these turns will follow a similar shape distribution to the current purple tracks, shifted slightly to the north-west to reflect the new runway's position. Residents near the existing departure corridor may notice an increase in the frequency or distribution of overhead traffic as movements are shared across both runways.

The introduction of parallel runway operations fundamentally changes what is possible for departing aircraft. Aircraft departing from the existing runway can no longer turn right after take-off as they do today, because the new runway will be operating to their right. At the same time, an early left turn is not possible due to the proximity of Essendon Airport to the east. To navigate these constraints, a new departure path has been designed that routes aircraft through Williamstown and out over Hobsons Bay before turning north over Albert Park.

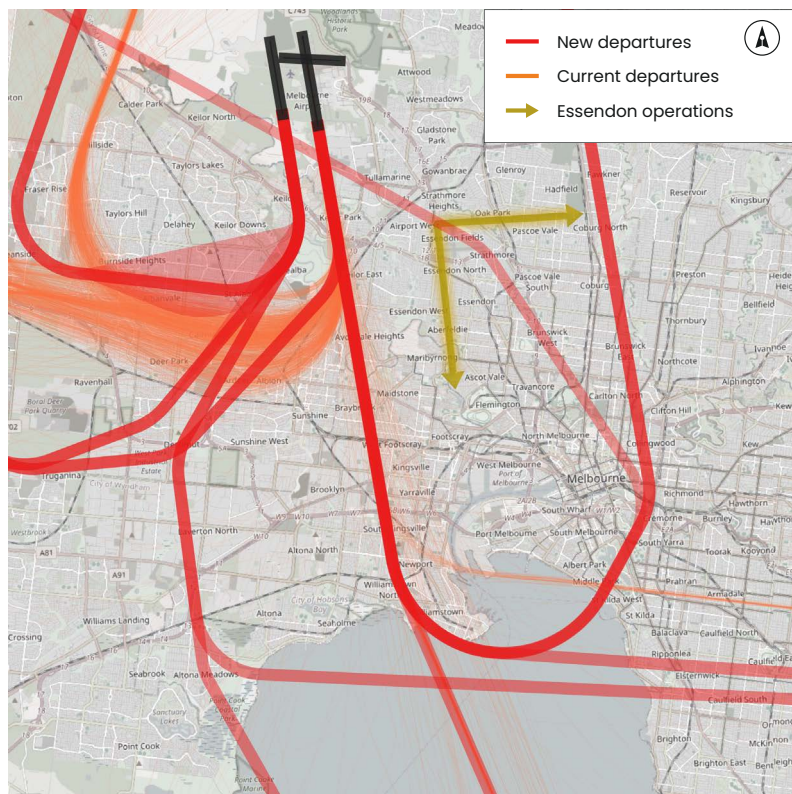


Figure 10.9 Inner south departures (southerly winds)

10.8 Southwest

Arrival paths over the southwest have been updated since the design shared during Phase 1 consultation. The most significant change is a 1,000-foot increase in arrival altitudes, consistent with the adjustment made in the south east described earlier in this document. As with that change, the higher arrival altitudes reduces the required controlled airspace needed to contain the updated approach procedures, freeing up additional airspace below for general aviation aircraft transiting Port Phillip Bay.

The altitude increase also has a specific benefit for RAAF Base Point Cook. The updated design means arrivals to Melbourne Airport cross Point Cook airspace at a higher altitude than previously proposed, reducing the impact on military flight operations in that area (Figure 10.10).

Two further refinements have been made to the arrival paths themselves. Arrivals tracking from the north now follow a longer path before joining the approach, which provides additional vertical room for departing aircraft to climb to the north without conflicting with arriving traffic. Arrivals tracking from the west have been routed to pass south of most populated areas before entering Port Phillip Bay, reducing the number of residents overflown during this phase of flight.

“Make flights higher”



Response: The altitude of arrival paths have been increased by 1000ft. This will reduce noise for Melbourne specific operations while providing general aviation with continued access across Port Phillip Bay.

“New flight paths away from residential areas”



Response: Flight paths for arrivals from the west have been changed to avoid flying over more populated areas such as Point Cook and Werribee South.

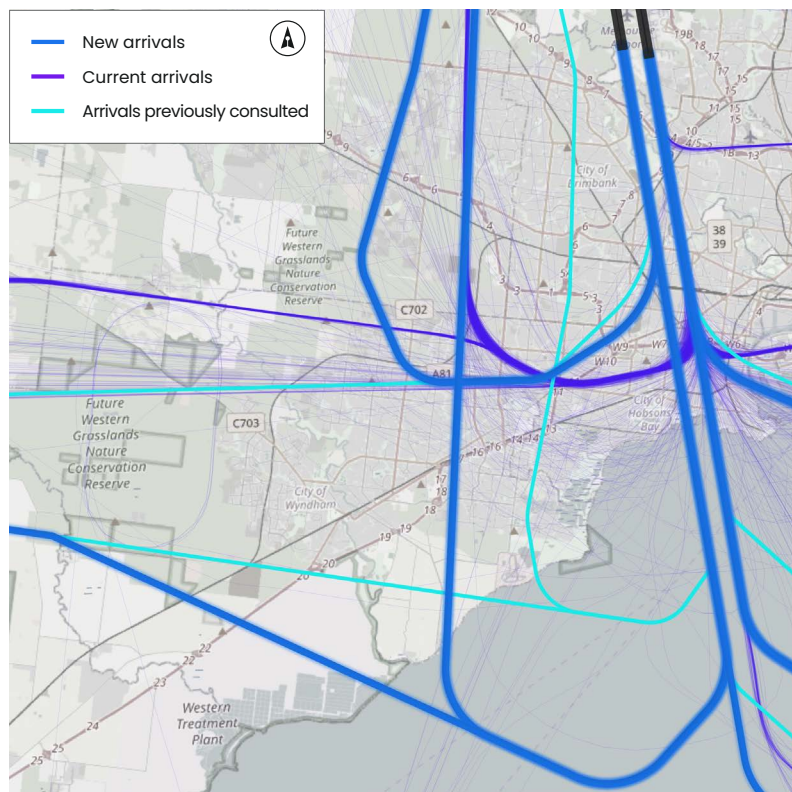


Figure 10.10 Southwest arrivals (northerly winds)

10.9 West

The maps for this area display all runway operating modes simultaneously (Figure 10.11, Figure 10.12). In practice, only one mode operates at a time, the full range of flight paths is shown here to illustrate the complete set of options available. These modes have been designed to suit varying traffic levels and weather conditions and a number of them are intentionally duplicated to enable respite through alternation, allowing flight paths to be rotated so that no single area is overflowed continuously.

Two changes are particularly worth noting. Departure paths have been broadly widened compared to current operations, which serves to create greater separation between departing and arriving aircraft as the airspace accommodates traffic from both runways.

For arrivals from the west, where today's traffic is concentrated along a small number of tracks, the new design spreads arrivals across a greater number of different flight paths.

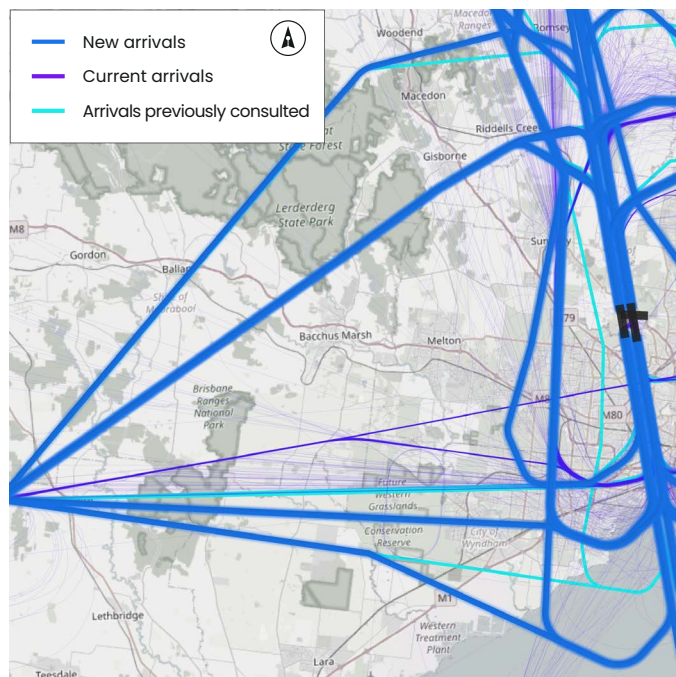


Figure 10.11 West arrivals

“More options regarding respite”

“Some areas are copping it more, you need to spread this out more”

Response: The design has been updated to include more opportunities for sharing noise through a greater number of runway modes available.

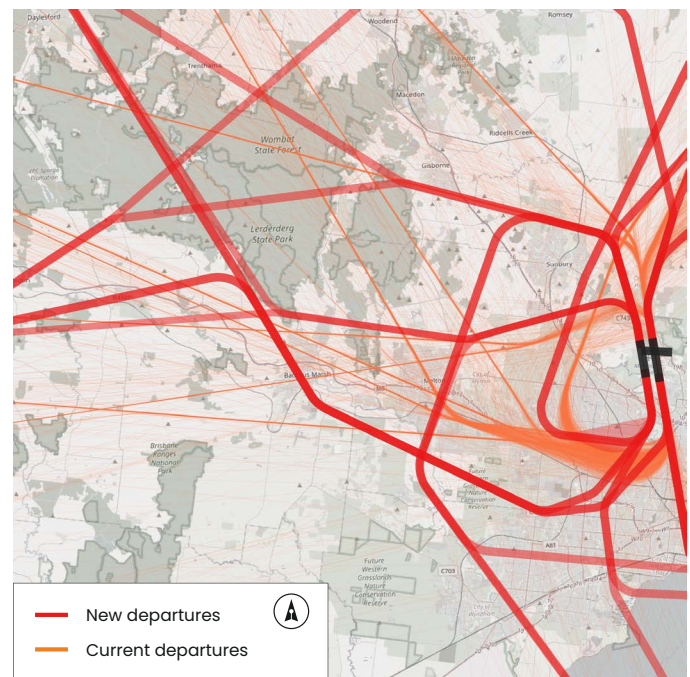


Figure 10.12 West departures

10.10 Unchanged flight paths

Arrivals

Figure 10.13 below presents historical arrival flight path data for Melbourne Airport extracted from a representative typical month in 2025, overlaid with a selection of current and future arrival paths to be utilised from the existing runway. The historical data is shown in purple, reflecting the natural operational deviation typical of real-world traffic, while the blue paths indicate arrival paths to existing runways which remain largely consistent with current tracking under the Noise Sharing Plan. While not all arrival paths are depicted, the image illustrates that areas of future operations will largely mirror existing patterns, including cross-runway arrivals and routes to the north and south of the current runway.

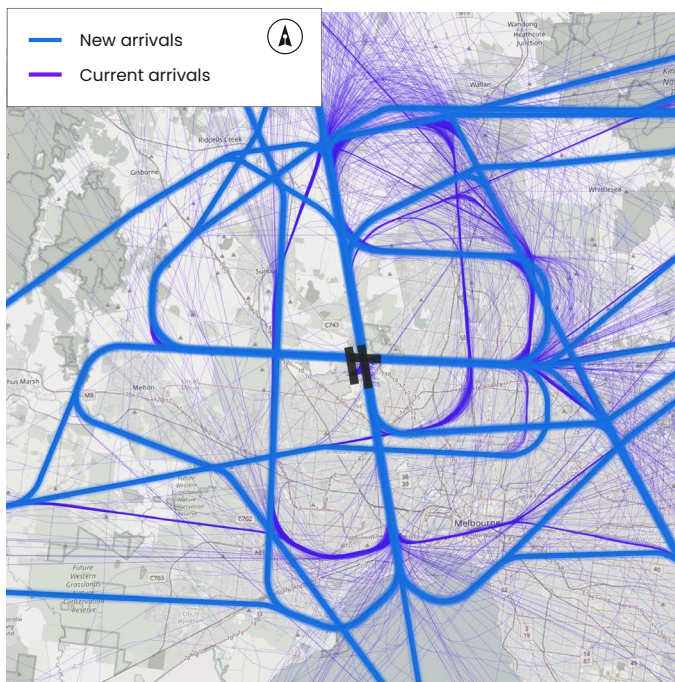


Figure 10.13 Historical arrival flight path data

Departures

Figure 10.14 below presents historical departure flight path data for Melbourne Airport extracted from a representative month in 2025, overlaid with a selection of current and future departure paths to be utilised from the existing runway. The historical data is shown in orange, reflecting the natural operational deviation typical of real-world traffic, while the red paths indicate departure paths from existing runways which remain largely consistent with current tracking under the Noise Sharing Plan. While not all departure paths are depicted, the image illustrates that areas of future operations will largely mirror existing patterns, including cross-runway departures and some routes to the north and south of the current runway.

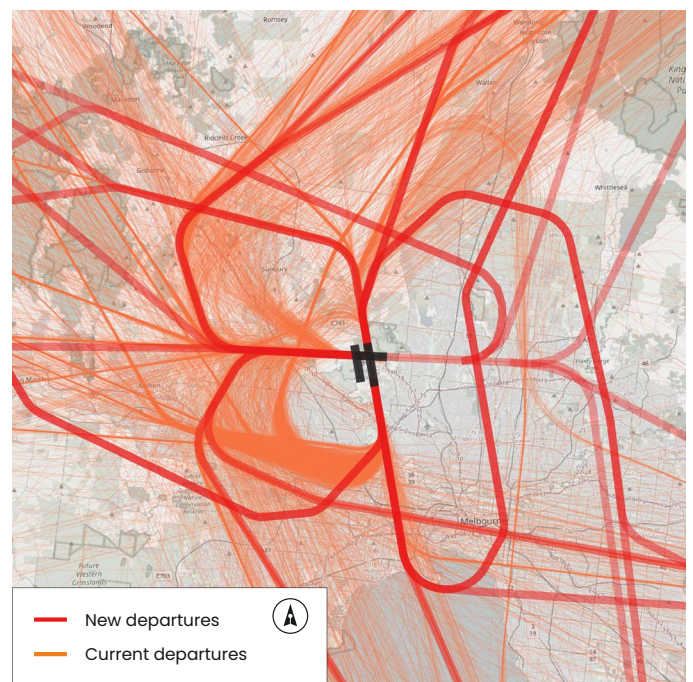
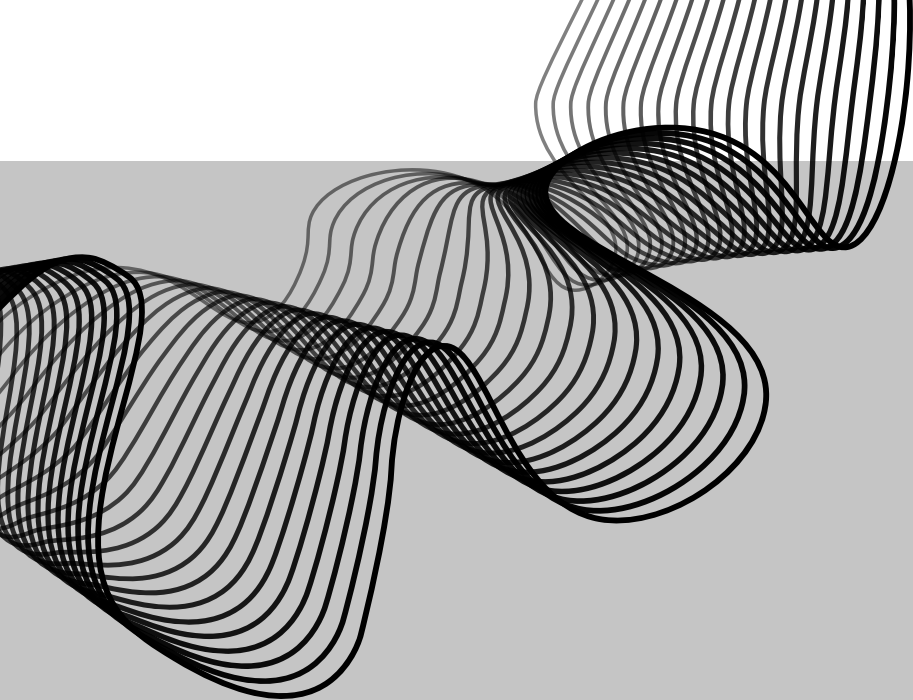


Figure 10.14 Historical departure flight path data





11

Next steps

11. Next steps

Next steps include the development of the final Noise Sharing Plan

- Refinement through consultation will strengthen the final Noise Sharing Plan
- Successful implementation depends on sustained coordination through to 2031 and beyond

This section outlines the next stages in developing, approving and implementing the Noise Sharing Plan, and explains how stakeholders and the community can continue to be involved.

11.1 Consultation on this draft Noise Sharing Plan

This draft Noise Sharing Plan has been released for public consultation to provide communities, aviation stakeholders and other interested parties with an opportunity to review the proposed approach to noise sharing and provide feedback.

Feedback is sought on whether the draft Noise Sharing Plan clearly explains:

- how runway operating modes and flight paths would be used once the third runway is operational and all runway construction activities are completed
- how aircraft noise would be shared across communities over time
- how community and aviation stakeholder feedback has been considered in shaping the proposed noise sharing approach.

Feedback received during this consultation period will be reviewed, documented and used to inform refinements to the Noise Sharing Plan where appropriate. A summary of consultation outcomes, including key themes and responses, will be published to demonstrate how input has been considered.

11.2 Refinement, Air Traffic Control and Airline simulation

Following consultation on this draft Noise Sharing Plan, it will be further refined, considering feedback received and any further technical assessment required.

At this stage, proposed runway operating modes and noise sharing principles will be validated through Air Traffic Control and Airline simulation to confirm:

- safety and compliance with regulatory standards
- operational feasibility and air traffic management requirements
- interactions with other airports and airspace users within the Melbourne Basin.

These simulations are undertaken to validate that proposed arrangements can be safely and effectively implemented before the Noise Sharing Plan is finalised.

“Regularly consult with community even when the third runway is in operation”



Response: An additional round of consultation has been built into the program to ensure we capture community feedback following the flight path digital simulation. We will then share the final Noise Sharing Plan with the community ahead of submission.

Following submission, Melbourne Airport will continue ongoing engagement with communities as part of its commitment to transparent communication about airport operations.



11.3 Further consultation on the updated Noise Sharing Plan

An updated draft Noise Sharing Plan will be prepared following simulation and refinement and will be made available for further public consultation.

This additional consultation phase will focus on:

- explaining refinements made since the consultation on this version of the draft Noise Sharing Plan
- presenting updated information and noise modelling where flight paths or operating arrangements have changed
- providing communities and aviation stakeholders with an opportunity to understand and comment on the final proposed airspace and flight path design prior to approval.

Details of this consultation phase, including how and when to provide feedback, will be published via the Melbourne Airport Major Projects Hub.

11.4 Approval of the Noise Sharing Plan

Once the Phase 3 consultation on the updated draft Noise Sharing Plan is complete, the final Noise Sharing Plan will be submitted to Airservices Australia for endorsement.

The Noise Sharing Plan will then be assessed by the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts against the conditions of approval attached to the Third Runway MDP.

The Federal Minister for Infrastructure, Transport, Regional Development and Local Government is the final decision-maker on approval of the Noise Sharing Plan.

11.5 Implementation and monitoring

Once approved, Airservices Australia will undertake detailed airspace design, safety assessment and validation in preparation for implementation.

Implementation activities include:

- detailed procedure design in accordance with aviation standards
- safety assessments and operational trials
- updates to aviation publications and pilot information.

The initial reporting framework, outlined in Section 9.1, establishes the principles that will guide future monitoring and reporting once the Noise Sharing Plan is implemented. Reporting could include runway mode usage, alternation, target ranges, operational exceptions and other performance measures to support ongoing monitoring of the Noise Sharing Plan.

Monitoring results will be made publicly available to support transparency and accountability over time.

11.6 How to provide feedback

Community members and stakeholders are encouraged to review this draft Noise Sharing Plan and provide feedback during the consultation period.

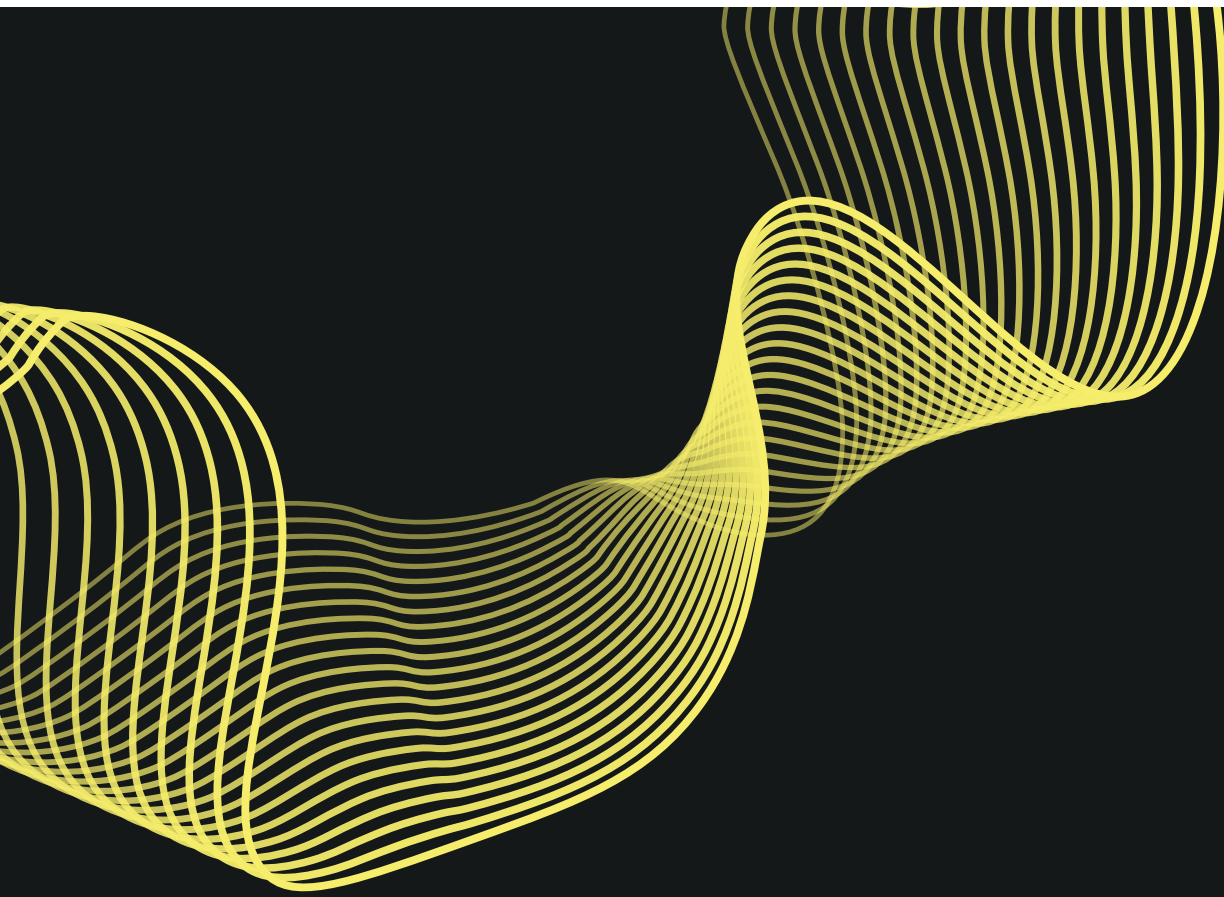
Feedback can be provided by:

- completing the online feedback form available via the Melbourne Airport Major Projects Hub
- attending community information sessions or webinars during the consultation period.

Use the QR code to access consultation materials or to submit feedback.

Your feedback plays an important role in shaping how aircraft noise is shared following the implementation of the Noise Sharing Plan.





A

Appendix A

Survey

Form preview

Noise Sharing Plan - Phase 1 Community Feedback

Melbourne Airport's Third Runway Project involves the construction of a new north-south runway to provide more capacity for passengers, exports, support competition, reduce delays and enable economic growth.

The third runway will allow 136,500 more arrivals and departures per year, making way for growth to 76 million passengers by 2042. As more flights support Melbourne's growth, some areas in Melbourne are likely to experience more aircraft noise.

A Noise Sharing Plan is one way to manage noise and is a formal condition of approval for Melbourne Airport's third runway under the Airports Act 1996 (Cth).

Noise sharing at Melbourne Airport means that, outside of busy periods (peak hours) and when safety and weather conditions permit, aircraft noise may be distributed to give communities meaningful breaks (respite) from aircraft noise exposure.

Please take a moment to complete the survey below, which will help us better understand your awareness of the Noise Sharing Plan and gather your feedback on its key principles. This survey will be open until 8 December 2025.

1. Do you feel you have a good understanding of what the Noise Sharing Plan for Melbourne Airport's Third Runway involves? *

A Noise Sharing Plan is an approval requirement for Melbourne Airport's Third Runway. The plan will identify strategies to offer meaningful breaks from aircraft noise during off-peak times, nights, or when specific weather conditions allow. The goal is to prevent any area from continuous noise exposure, rather than give all areas an equal share of aircraft noise.

☐ Yes, fully aware and understand all details

☐ Somewhat aware and understand the main points

☐ Heard of it but don't know the details

☐ Not at all aware

2. Airports are governed by procedures and standards that dictate safety as a top priority and a non-negotiable principle. Maintaining access and capacity for the airport when it's required in peak periods is non-negotiable. Outside of peak periods and when safety and weather conditions allow, the Noise Sharing Plan provides an opportunity to provide noise respite.

Below is a list of negotiable key principles that can guide the approach outside peak periods for a Noise Sharing Plan. Rank these in order of most to least important (hold each option and drag the boxes up or down to rank your choices from 1 to 5, preferred to least preferred). *

 Drag and drop to reorder, then tick the checkbox to confirm your order.

1 Airport operational efficiency

2 Alternate between runways to share noise across different communities when conditions allow

3 Demonstrating how community concerns are considered

4 Align with long-term aviation industry emissions reduction goals

5 Other

☐ I confirm the order above is correct *

 If you selected 'Other' above, please specify

Busy periods are defined as 7am–11am and 4pm–10pm. In the first few years of the third runway opening, the PM busy periods can be more flexible. This can alternate across different communities at different times but generally requires a predetermined schedule for predictability and safe aircraft operations.

3. Outside of busy periods and when conditions allow, the Noise Sharing Plan can provide guidance on when communities can experience some respite from aircraft noise.

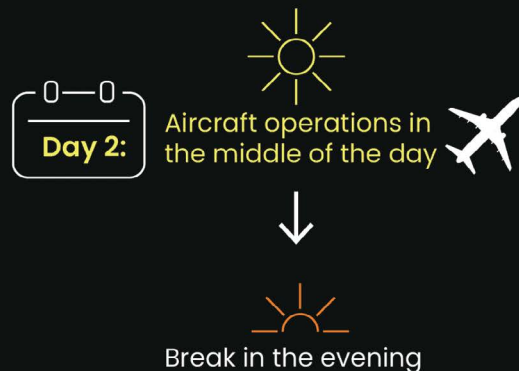
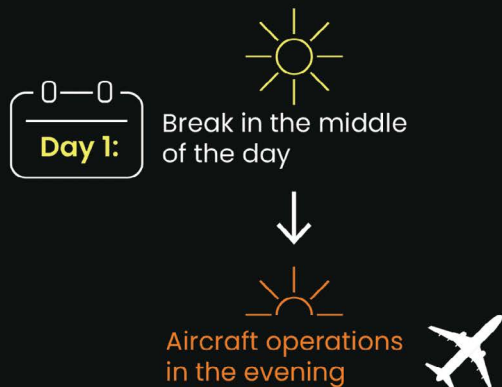
How would you prefer to see respite periods scheduled? Rank the three options provided below (hold each option and drag the boxes up or down to rank your choices from 1 to 3, preferred to least preferred). *

 Drag and drop to reorder, then tick the checkbox to confirm your order.

1 Alternating daytime respite periods e.g.

- Day 1: Break in the middle of the day, aircraft operations in the evening
- Day 2: Aircraft operations in the middle of the day, break in the evening

Alternating daytime respite periods



2 Alternating days of respite e.g.

- Day 1: Break – out of peak hours respite only
- Day 2: Aircraft operations for the full day

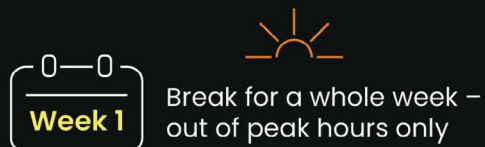
Alternating days of respite



3 Alternating weeks of respite e.g.

- Week 1: Break for a whole week – out of peak hours only
- Week 2: Aircraft operations for the full week

Alternating weeks of respite



4 Other

☐ I confirm the order above is correct *

If you selected 'Other', please specify

4. When traffic levels and conditions allow, we want to understand when you would want to experience respite from aircraft noise. (Please note: As the population grows and demand for flights from Melbourne Airport increases, the times when we can share noise across Melbourne will decrease.)

Select two preferred times for weekdays and two for the weekend.

Weekday *

☐ Midday (12pm–3pm)

☐ Evening (6pm–9pm)

☐ Overnight (10pm–6am)

Weekend *

☐ Early morning (6am–9am)

☐ Midday (12pm–3pm)

☐ Evening (6pm–9pm)

☐ Overnight (10pm–6am)

5. What type of information would you like to see more of in the draft Noise Sharing Plan that will be released in mid-late 2026? Select all that apply *

☐ Operational information (runway modes and flight paths)

☐ Noise impacts

☐ Other environmental impacts

☐ Community feedback summaries

☐ Forecast passenger growth / aircraft movements

☐ Future planning and proposals for the airport

☐ Other:

6. Do you have any other comments or suggestions for how aircraft noise could be shared or managed with the implementation of the new third runway?

7. Please provide your suburb. Choose from the drop-down menu. *

Enter a location

If you would like to receive updates on the Noise Sharing Plan Project, please provide your details below:

First name

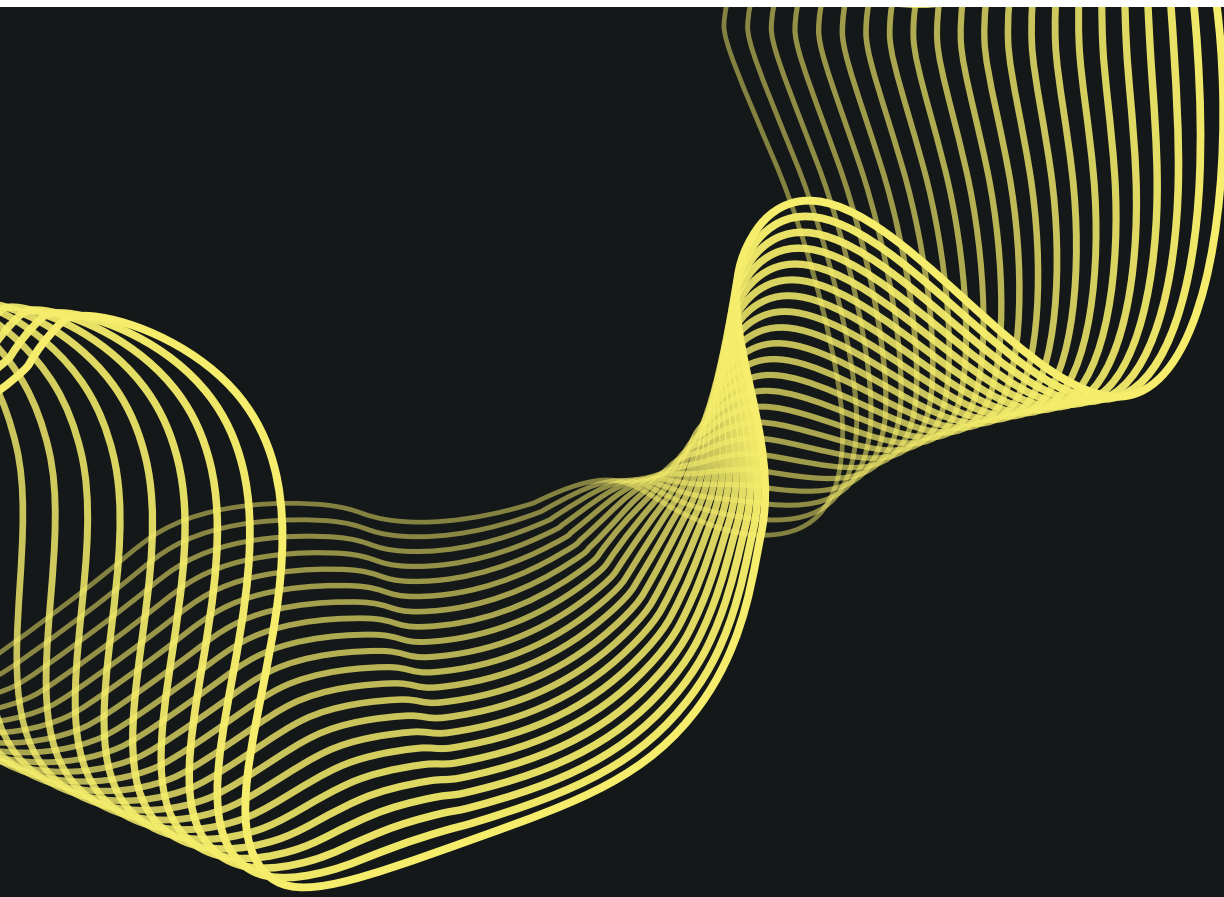
Last name

Email

☐ I agree to the terms and conditions below *

I understand that personal information I have provided will be kept on the stakeholder database for the use of Melbourne Airport and its contractors who will follow privacy guidelines ([please read the privacy policy here](#)) and I understand Melbourne Airport and/or its contractors will send correspondence to me via my preferred form of contact. Submissions may be reviewed and summarised using artificial intelligence (AI) tools with enterprise-grade data protection measures in place. These tools are used solely to assist APAM and its contractors in efficiently analysing and responding to feedback. Any personal information processed by AI tools will be handled securely and in accordance with APAM's Privacy Policy and applicable privacy laws.

Submit

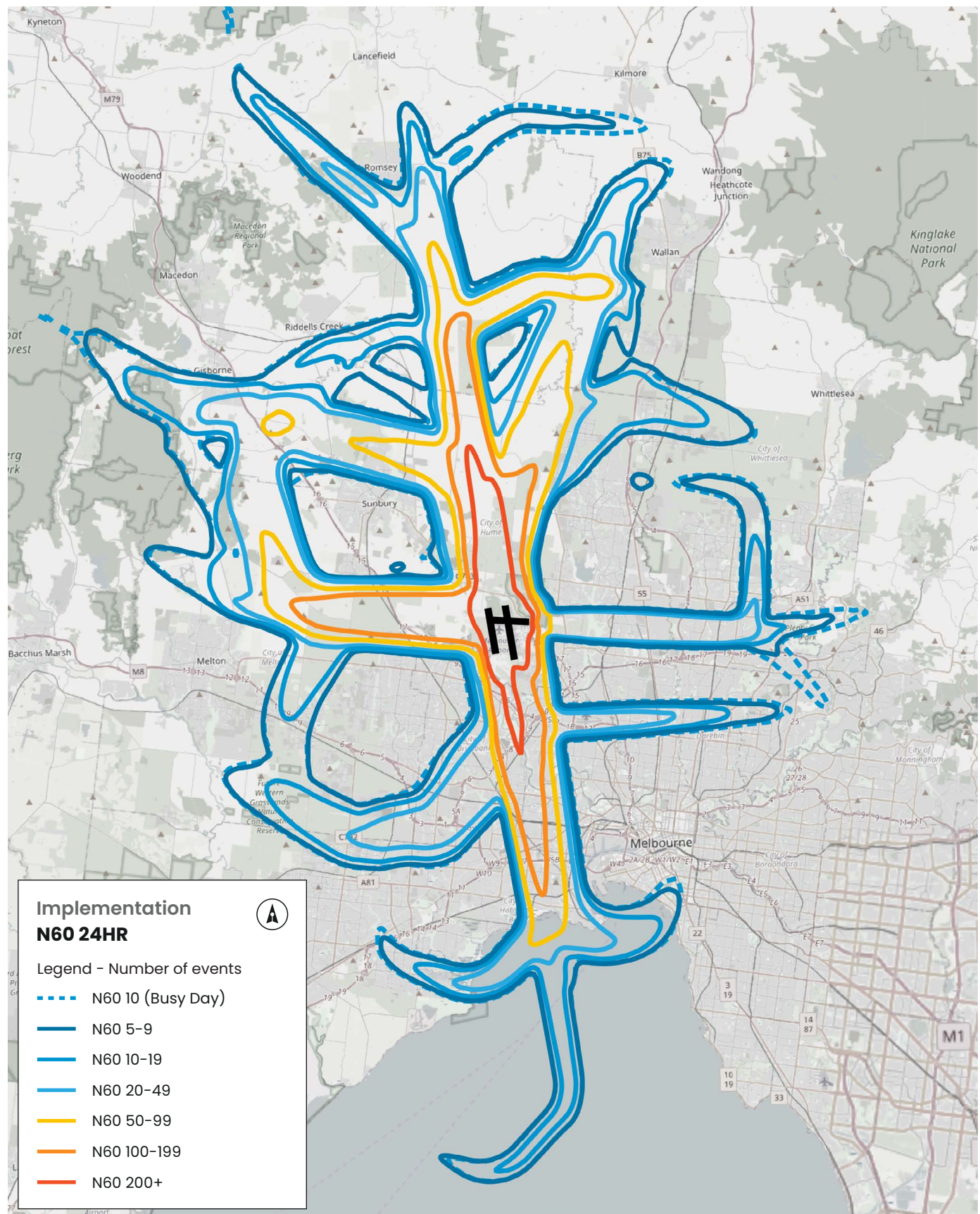


B

Appendix B

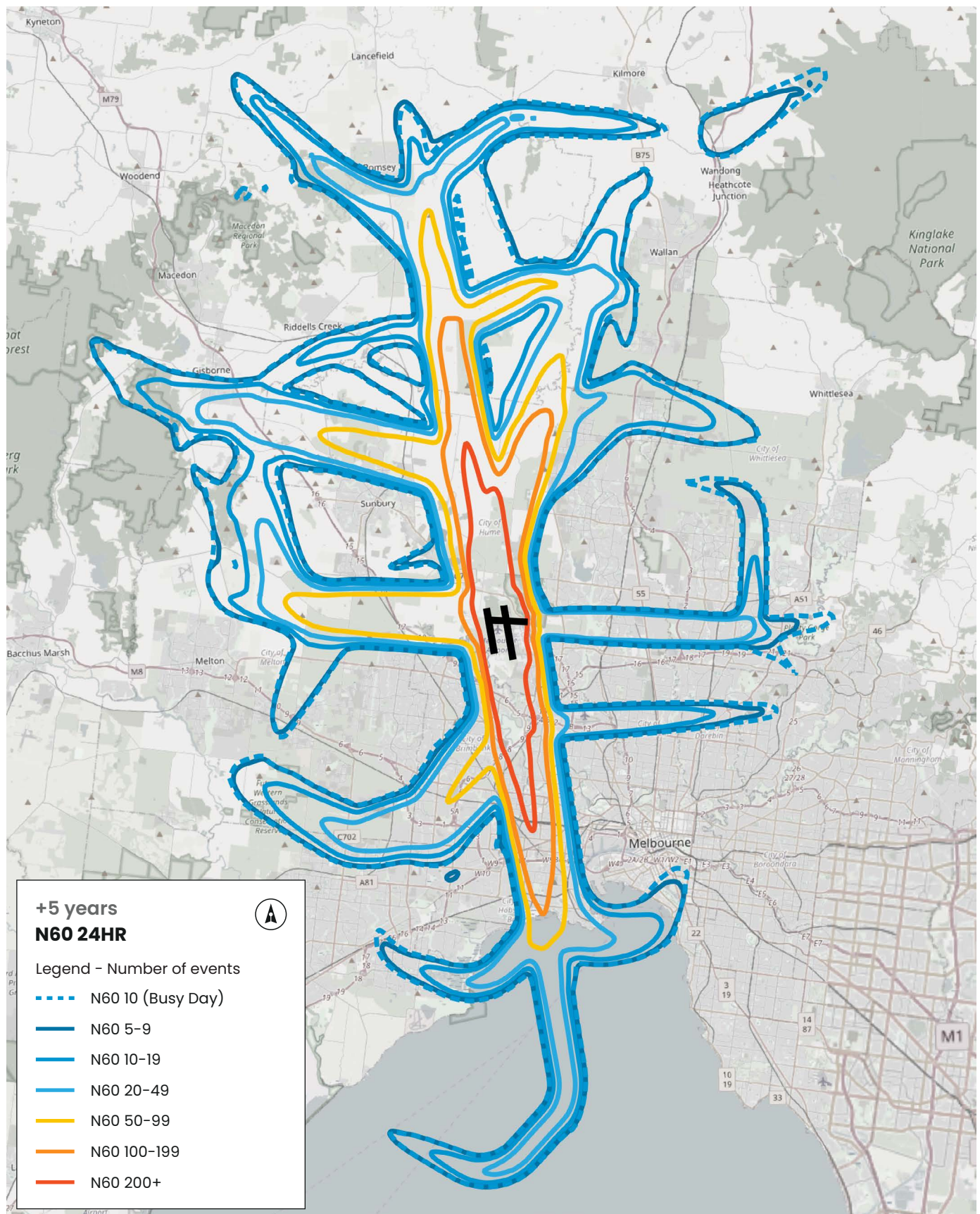
Noise contours

N60 24-hours Implementation



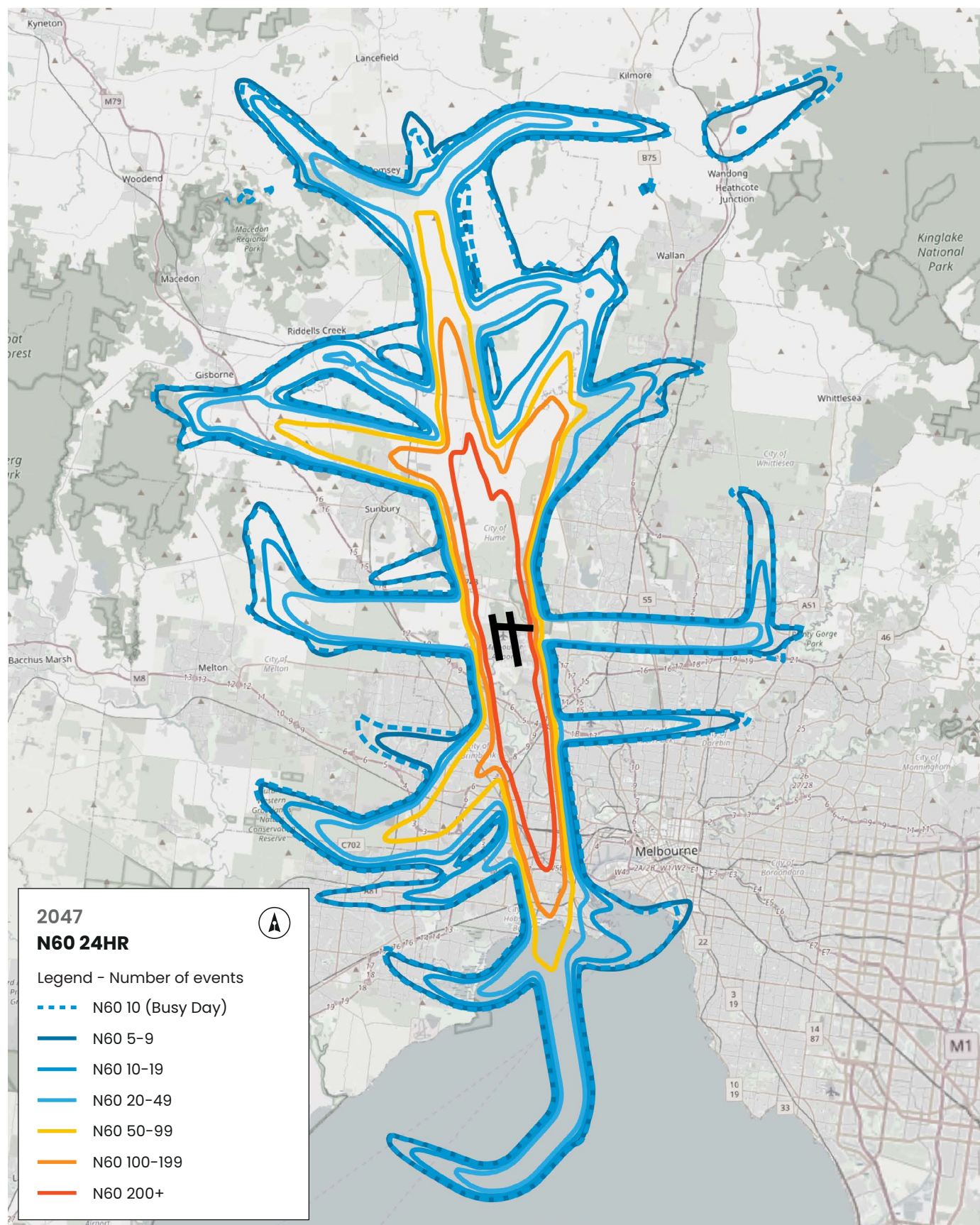
N60 24-hours

Implementation + 5 years

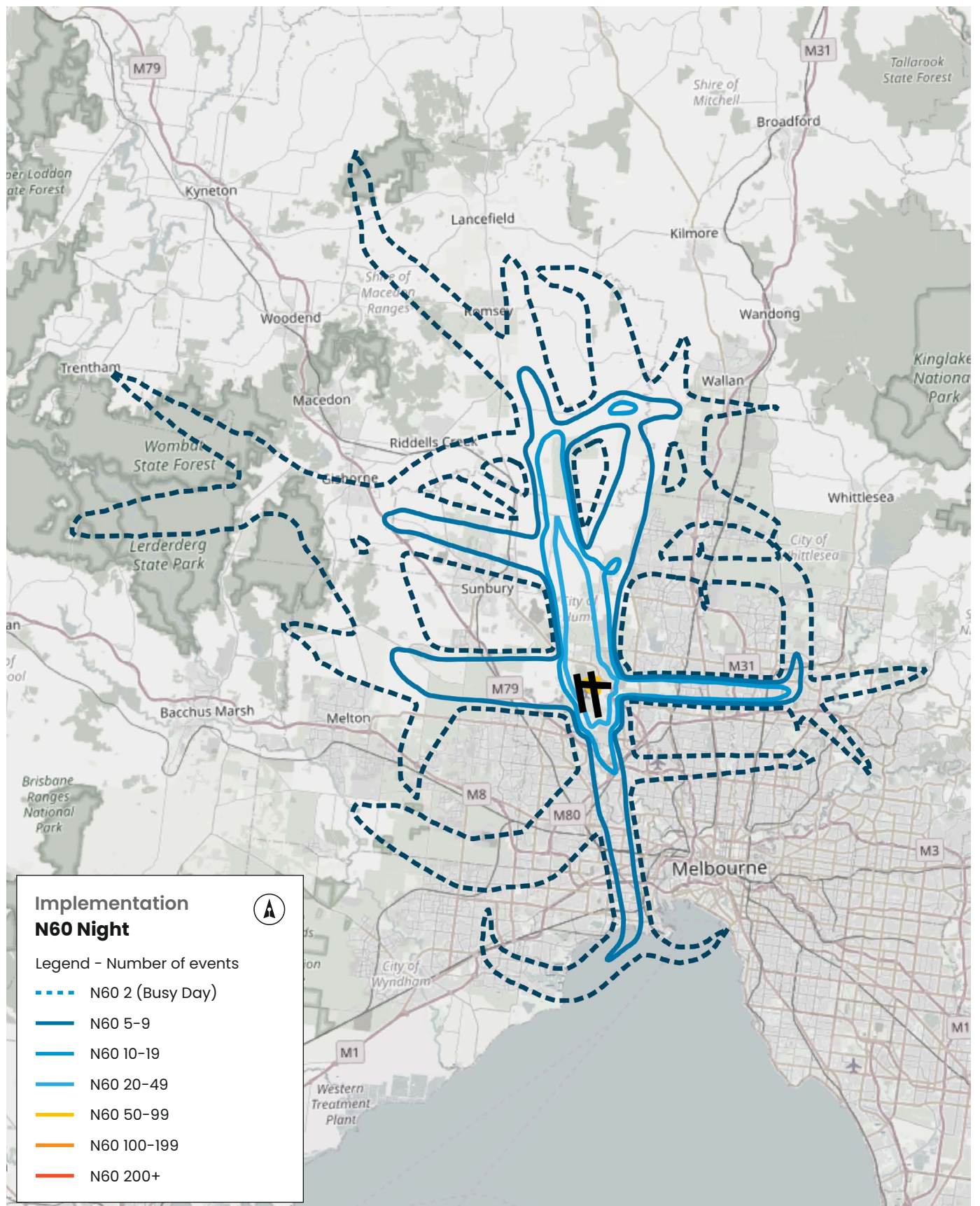


N60 24-hours

2047

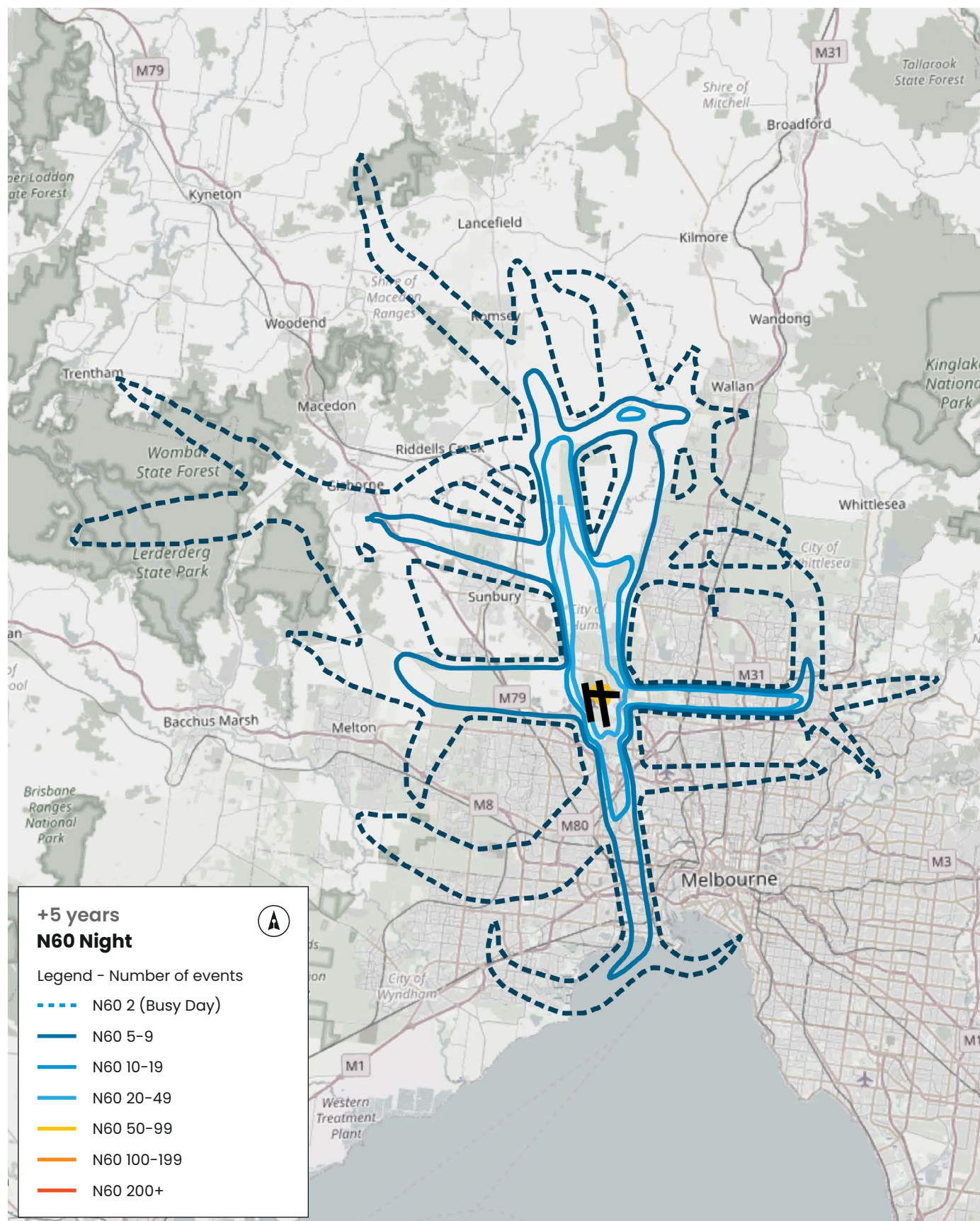


N60 Night Implementation



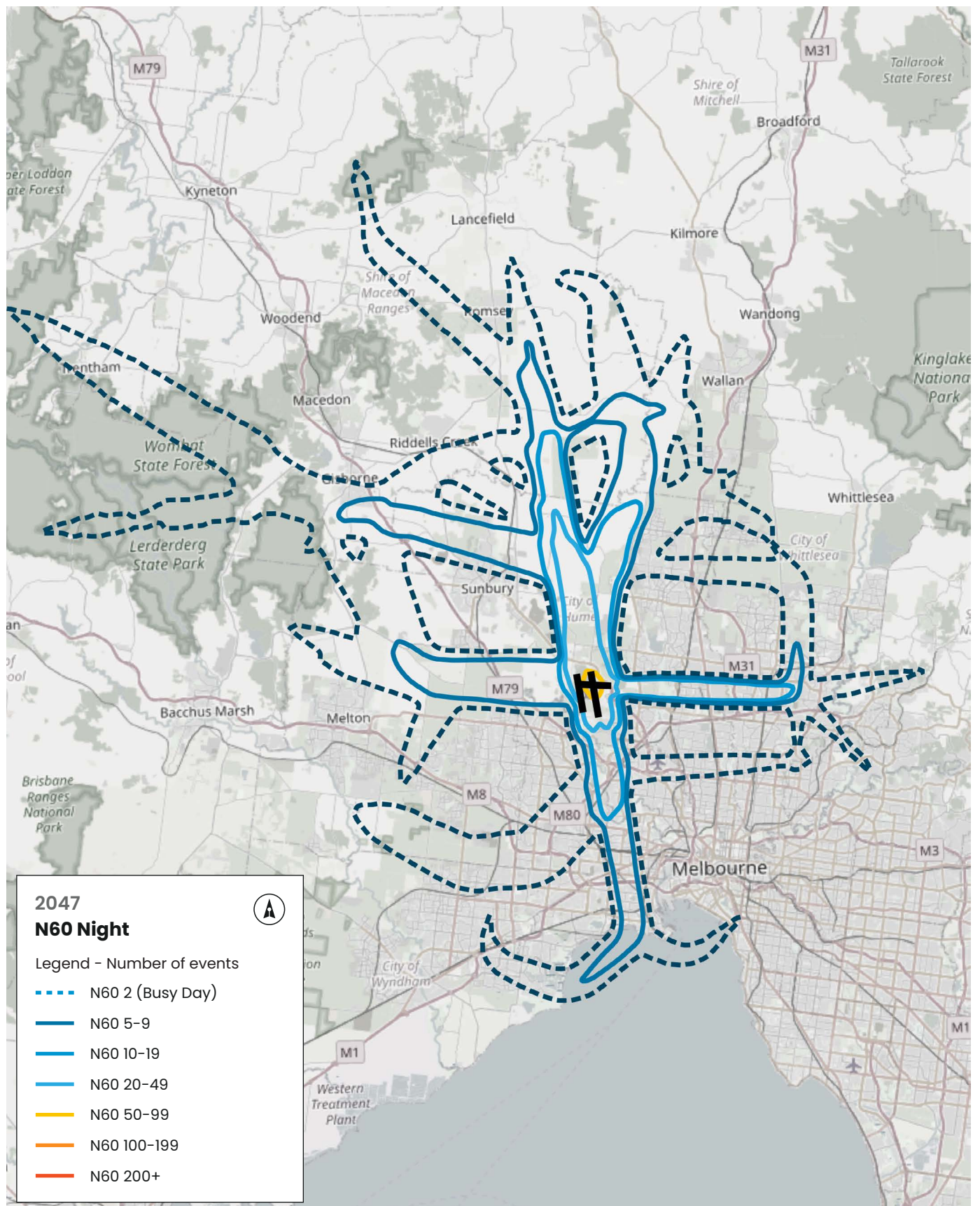
N60 Night

Implementation + 5 years

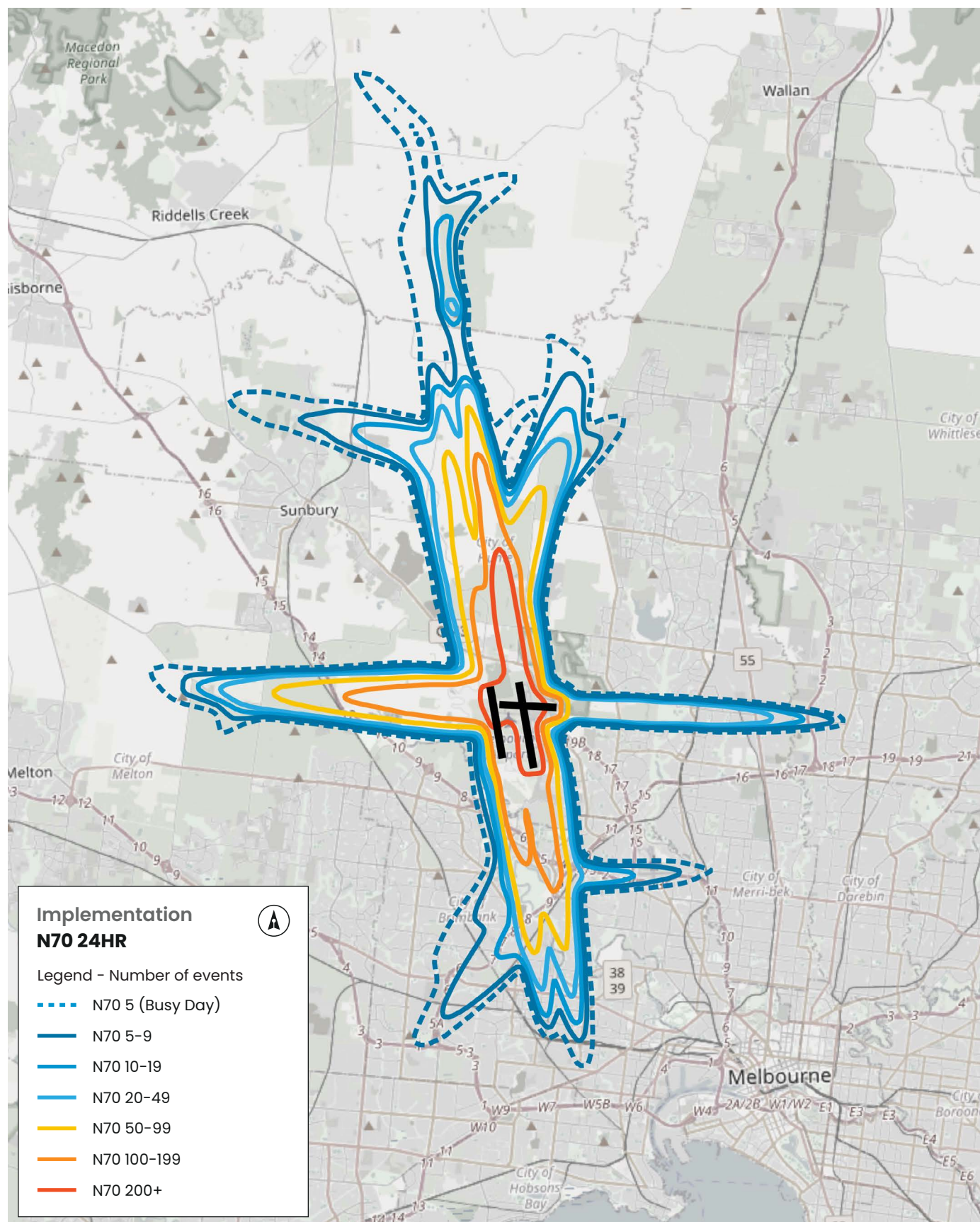


N60 Night

2047



N70 24-hours Implementation



Implementation + 5 years

