

Public safety areas

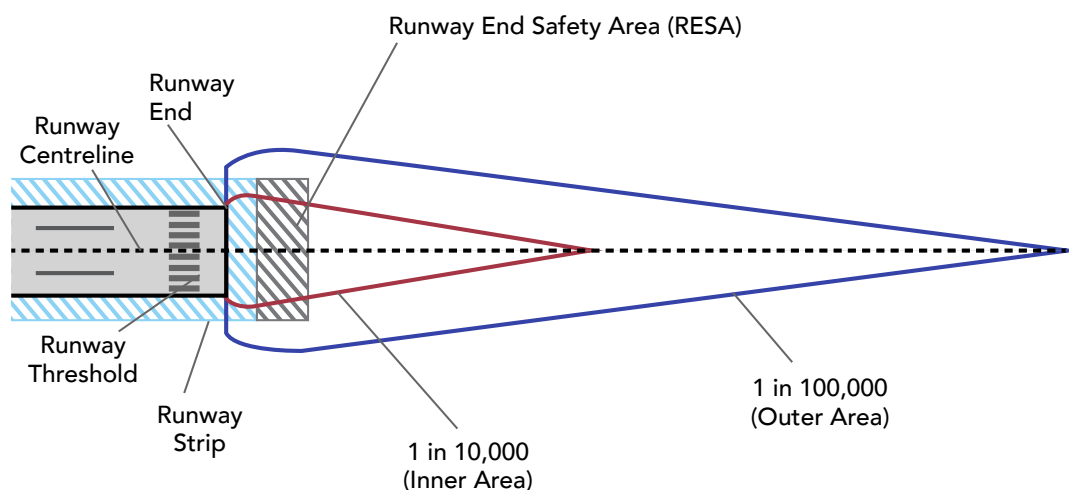
Fact Sheet

Australia has an excellent aviation safety record, however there are some risks in the industry. Careful use of land around runways can help limit the risk of public hazards in the unlikely event of an aircraft accident during take-off or landing.

Public safety areas (PSAs) are zones where development is restricted to control the number of people within the most hazardous proximities of a runway. PSAs reduce the low risk of an aircraft accident affecting people who live or work near an airport.

The National Airports Safeguarding Framework (NASF) Guideline I 'Managing the Risk in Public Safety Areas at the Ends of Runways' outlines approaches to PSAs that airports in Australia use to manage these risks.

NASF Guideline I suggests a balanced approach with the PSA, made up of an inner and outer area.



The Outer PSA is based on a 1 in 100,000 level of risk per year. At this risk level, a person would have to remain in one location continuously for 100,000 years to meet the likelihood of serious injury or death caused by an aircraft accident. This is a relatively low level of risk compared to daily life (for example, in Australia the risk of a person being killed in a road accident is about 5 times higher).

Defining a public safety area

The risk levels for a PSA for the third runway and individual risk contours relevant to Melbourne Airport were calculated according to NASF Guideline I.

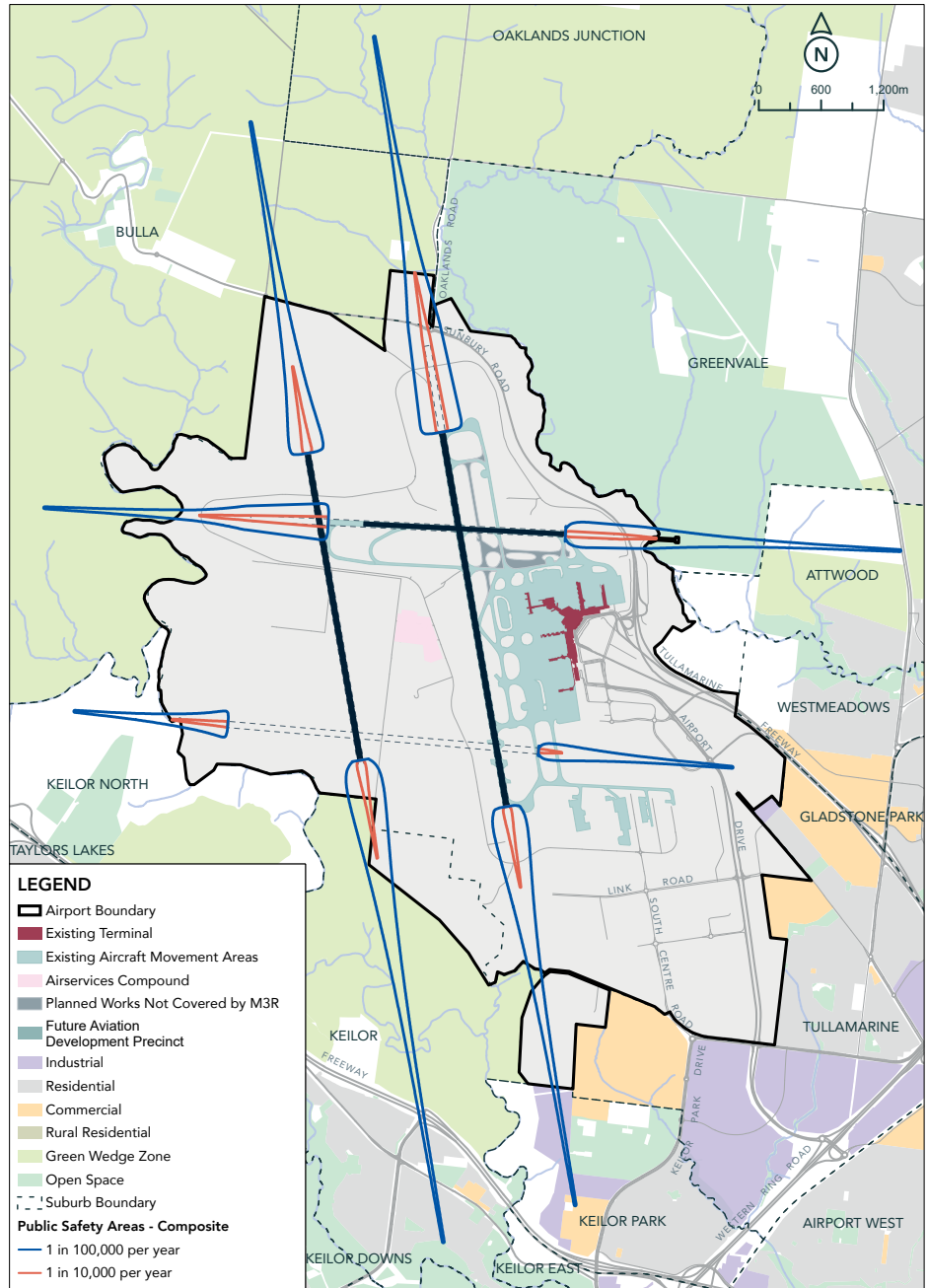
The guideline is based on the principles of a study conducted by NATS, who provide air traffic control services to the UK Department of Transport. The NATS risk modelling approach is based on calculating risk worldwide.

Public safety areas are influenced by

- historic data for accident types and frequencies as analysed worldwide
- forecast movements, with worldwide accident frequencies applied to project flight volumes for each aircraft type at Melbourne Airport
- aircraft traffic allocated to each runway.

Accident frequencies used in the assessment are based on historical data and are applied to newer and future aircraft types. This is a conservative approach as it is anticipated new aircraft types will continue to improve safety performance.

Melbourne Airport Master Plan 2022 public safety areas



Compatible and incompatible uses and activities within public safety areas

Public Safety Areas	Compatible Uses	Incompatible uses / activities
Outer Area 1 in 100,000	<ul style="list-style-type: none"> • Long stay and employee car parking (where the minimum stay is expected to be in excess of six hours) • Shorter stay car parking (with a safety case – depends on intensity of use) • Built development for the purpose of housing plant or machinery and would require no people on site on a regular basis, such as electricity switching stations or installations associated with the supply or treatment of water • Golf courses, but not club houses (provided appropriate mitigation measures are in place to reduce wildlife attraction risk - see NASF Guideline C) • Open storage and types of warehouses with a very small number of people on site. The planning authority could consider imposing conditions to prevent future intensification of the use of the site and limit the number of people to be present on the site • Developments which require few or no people on site on a regular basis such as buildings housing plant or machinery • Low intensity public open space 	<ul style="list-style-type: none"> • Accommodation activities: This includes dwelling houses, multiple dwellings, resort complexes, tourist park, hostels, retirement villages or other residential care buildings • Community activities: educational establishment, community centres, hospitals, theatres, childcare and playgrounds, detention facilities, place of worship • Recreation activities: This includes parks, outdoor recreation and sport, major sport and entertainment facilities • Entertainment and centre activities: Shopping centres, service stations, showrooms, markets, hotels, theatres, tourist attraction, garden centres • Industrial and commercial uses involving large numbers of workers or customers: Intensive uses such as high impact, medium and low impact industry, warehousing, services industry • Manufacture or bulk storage of flammable, explosive or noxious materials • Public passenger transport infrastructure: This includes bus, train and light rail stations
Inner Area 1 in 10,000	<ul style="list-style-type: none"> • Long stay and employee car parking (where the minimum stay is expected to be in excess of six hours) • Built development for the purpose of housing plant or machinery and would require no people on site on a regular basis, such as electricity switching stations or installations associated with the supply or treatment of water • Golf courses, but not club houses (provided appropriate mitigation measures are in place to reduce wildlife attraction risk - see National Airports Safeguarding Framework Guideline C) 	<ul style="list-style-type: none"> • Accommodation activities: This includes dwelling houses, multiple dwellings, resort complexes, tourist park, hostels, retirement villages or other residential care buildings • Community activities: Educational establishments, community centres, hospitals, theatres, childcare and playgrounds, detention facilities, places of worship • Recreation activities: This includes parks, outdoor recreation and sport, major sport and entertainment facilities • Entertainment and centre activities: Shopping centres, service stations, showrooms, markets, hotels, theatres, tourist attraction, garden centres • Industrial and commercial uses involving large numbers of workers or customers: Intensive uses such as high impact, medium and low impact industry, warehousing, services industry • Manufacture or bulk storage of flammable, explosive or noxious materials • Public passenger transport infrastructure: This includes bus, train and light rail stations

Source: NASF Guideline, Department of Infrastructure, Transport, Regional Development, Communications and the Arts.

Further information

Public Safety Areas

www.infrastructure.gov.au/sites/default/files/documents/FAQ-Airport-Public-Safety-Areas.pdf

NASF Guideline I

www.infrastructure.gov.au/sites/default/files/documents/NASF-Guideline-I-PSA.pdf

Melbourne Airport Master Plan 2022, Section 15.15 managing the risk in public safety areas

www.melbourneairport.com.au/corporate/master-plan