

# 1.0

## Introduction

1.1	Airport setting	9
1.2	Historical development	9
1.3	Master Plan 03/04 – progress and achievements	11
1.4	Vision	12
1.5	Purpose of the Master Plan	12
1.6	Development objectives	12
1.7	Planning principles and assumptions	12
1.8	Statutory requirements	12
1.9	Terms used in this Master Plan	14



The background is a solid blue color with several abstract, semi-transparent geometric elements. There are large, sweeping curves that create a sense of motion and depth. Overlaid on these are various patterns: a series of small circles arranged in a slightly curved line, and several dashed lines of varying lengths and orientations. The overall aesthetic is clean, modern, and technical, consistent with an airport master plan document.

# Sydney Airport Master Plan 2009

# 1.0 Introduction

---

Master planning is a part of a dynamic process within the aviation industry. Master Plans evolve as markets and aviation technologies change and as airlines and businesses adapt to new operating environments. This is the second Master Plan prepared for Sydney Airport under the Airports Act 1996 and it updates and replaces the Master Plan 03/04. It has been prepared with input from the community and other key stakeholders.

## 1.1 Airport setting

Sydney Airport is Australia's premier airport and our gateway to the world. Sydney Airport connects Sydney – Australia's only global city – and New South Wales (NSW) – Australia's most populous state – to other cities and regions across Australia. It provides access to all the benefits of the global aviation network.

Sydney Airport underpins the vitally important tourism, events and conference industries and creates jobs and economic growth for Sydney and NSW. The international air services available because of Sydney Airport are also an essential factor for the high value service industries of education, finance, legal services and business generally as they provide access to new customers, markets and global opportunities.

Sydney Airport has all the major infrastructure elements needed to operate a modern and efficient international airport and to accommodate the forecast growth in aviation activity. This includes:

- three runways – medium spaced parallel runways in the north-south (16/34) direction (3,962m and 2,438m) and an intersecting/cross runway in the east-west (07/25) direction (2,530m);
- two terminal precincts – T1 (the International Terminal) in the north-west sector and T2 and T3 (the Domestic Terminals) in the north-east sector;
- maintenance and hangar facilities – Qantas Jet Base;
- nav aids and communications systems;
- domestic freight handling facilities;
- a General Aviation area;
- car parking for short and long stay customers; and
- all other necessary airport infrastructure.

Sydney Airport is situated eight kilometres south of Sydney's Central Business District (CBD) on a 907 hectare site owned by the Australian Government and leased to Sydney Airport Corporation Limited (SACL), known as the airport lessee company (ALC) under the Airports Act 1996. The airport is strategically located on the northern shores of Botany Bay adjacent to Sydney's main shipping container port – Port Botany.

The airport is bordered in part by major roads including General Holmes Drive, the M5 East Motorway and Southern Cross Drive and is served by two on-airport railway stations which link into Sydney's CityRail passenger network. The boundaries of the local government areas of the City of Botany Bay, Marrickville Council and the City of Rockdale run through the airport.

## 1.2 Historical development

The land on which today's Sydney Airport is sited – the northern shore of Botany Bay – is within the traditional country of the Eora people, the name given to the coastal Aborigines around Sydney. The site has been a vital part of the history of Sydney since the earliest days of European settlement. The key stages of Sydney Airport's development over nearly 90 years are summarised in Table 1.1.

Master planning reflects the key aspects of the Airport's historical development, namely:

- its strategic location on the northern shore of Botany Bay;
- early and ongoing planning decisions on essential airfield infrastructure such as runway directions and terminal locations which have essentially remained constant for over 50 years;
- the long standing curfew (11pm to 6am) on most aircraft movements to mitigate noise impacts on residential areas;

**Table 1.1 Key stages in the development of Sydney Airport**

	Year	Activity	Master Plan Implications
<b>Pre-aviation</b>	<b>19th century</b>	Freshwater supply for Port Jackson sourced from ponds on eastern side of Airport site (1835). Construction of Alexandra Canal which was planned to connect Botany Bay with Port Jackson. During late 19th and early 20 <sup>th</sup> centuries, Airport site is used for industrial buildings including textile and flour mills.	The Alexandra Canal sandstone embankment, remains of the original pumping station and the Engine and Mill Ponds are listed as environmentally significant in Sydney Airport’s Environment Strategy (see Chapter 14).
	<b>1911</b>	The first aircraft lands on the former Ascot Racecourse (now part of the airport site).	Environmentally significant remnant fig trees reflect this historical use (see Section 14.2.7).
	<b>1920s</b>	‘Mascot Aerodrome’ officially opened and Commonwealth Government acquires the aerodrome.	This is part of a program to develop a nationwide airport network
<b>Early airport development</b>	<b>1930s</b>	Additional land is purchased, the main runway is surfaced with gravel and two ancillary grass runways are laid out.	These early runways were located in the vicinity of what is now the Domestic Precinct and Qantas Jet Base.
	<b>1940-45</b>	New passenger terminal opened and Airport is further developed during World War II to enhance its civilian and military facilities.	Elements of this building remain in the Domestic precinct and have been identified as having heritage significance (see Section 14.2.7).
	<b>Post 1945</b>	Cooks River is diverted and two new runways are built.	Key elements of existing Airport laid out – in particular the runways (see Chapter 6).
	<b>1959</b>	Arrival of B707 and other jet and turbo-prop aircraft ushers in rapid growth in air travel.	
	<b>1963</b>	11pm to 6am curfew is adopted in response to aircraft noise.	
<b>Into the Jet Era</b>	<b>1968</b>	Main north-south runway (16R/34L) is extended by land reclamation into Botany Bay to cater for long-haul international jets.	Curfew remains a key operating influence for Sydney Airport (see Section 3.2).
	<b>1970</b>	First stage of international terminal opens on current site.	Location of General Holmes Drive under the runway and diversion of the Southern and Western Suburbs Ocean Outfall Sewers.
	<b>1970s</b>	Further expansion of the international and domestic terminals. In 1972 Runway 16/34 is extended into Botany Bay to its present length of 3,962m.	The Long Term Operating Plan commences in 1997. Noise insulation program commenced in the late 1990s and remains a key operating parameter.
	<b>1992</b>	Major expansion of International terminal adds eight gates for B747-400 aircraft	
<b>Major airport expansion</b>	<b>1994</b>	The parallel runway (16L/34R) opens at its current length of 2,438m. New flight paths added.	
	<b>1996</b>	Current control tower opens.	Complements parallel runways
	<b>2000</b>	International and domestic terminals significantly upgraded and expanded.	
	<b>2000</b>	Significant ground access infrastructure developed – the Airport Rail Link, the Eastern Distributor and M5 East Motorway.	
	<b>2002</b>	Sale of Sydney Airport to the Southern Cross Airports Corporation is completed.	Statutory requirement for development of a 20 year Master Plan for the airport.
<b>Post-privatisation</b>	<b>2004</b>	Sydney Airport Master Plan 03/04 approved.	Sets out planning proposals for Sydney Airport for a 20 year period.
	<b>2002-08</b>	Sydney Airport Corporation Limited invests \$850 million on capital projects since the airport was privatised in July 2002, with significant further investment to come. Key projects include terminal upgrades, new car parks, new checked baggage screening facilities, Runway End Safety Areas and making Sydney Airport ready for the larger, quieter, cleaner and more fuel efficient aircraft.	Development reflected in or consistent with Master Plan 03/04.

- the Long Term Operating Plan (LTOP) and Aircraft Movement Cap of 80 aircraft per hour; and

- the progressive and substantial investment in airport development and related landside transport infrastructure over nearly 90 years.

### 1.3 Master Plan 03/04 – progress and achievements

Since Sydney Airport's Master Plan 03/04 was approved on 22 March 2004 and the Sydney Airport Environment Strategy 2005/2010 was approved on 18 January 2005 by the Australian Government, a wide range of development projects (see below) and environmental initiatives (see Chapter 14) have been or are being implemented.

#### Development projects

- A \$500 million **upgrade and expansion of T1** is now underway. This investment will ensure that Sydney Airport retains its position as Australia's premier airport. The project, which was developed following feedback from airline passengers and all other relevant stakeholders, involves:
  - adding 7,300 sqm to the departures level to provide world class passenger facilities including centralised passenger processing, new retail, food and beverage outlets, additional moving walkways and passenger waiting areas;
  - a new outbound and early baggage handling system; and
  - Upgrading the arrivals baggage system with three new baggage reclaim carousels to meet the peak passenger flows associated with the introduction of new aircraft into the global airline fleet.
- The new \$65 million eight storey **car park at T1** provides approximately 3,000 undercover parking spaces and is directly linked to T1's departures level;
- Several important **commercial facilities** have been completed including a 15,000sqm administration building for the Australian Customs Service near T1; a 14,000sqm freight facility for DHL; new first class lounge for Qantas at T1; and a Formule 1 Hotel in the domestic precinct;
- **Safety and security for passengers and staff** is a top priority and Sydney Airport has spent \$90 million to provide 100% checked bag screening at T1 and T2. The security screening allows automated x-ray scanning of checked passenger baggage to prevent explosives from being loaded into the holds of planes. The system is designed to screen thousands of bags every hour to make sure there are no delays to passengers or flights;
- The world's fleet of commercial aircraft is undergoing a massive transformation. The groundbreaking new technology being used by the world's major manufacturers of aircraft is far better for the environment. The new generation of larger, quieter, cleaner and more fuel efficient aircraft will reduce aviation's impact on climate change and will reduce aircraft noise impacts. To be ready for these new aircraft, Sydney Airport has invested \$128 million on **airside infrastructure facilities for the introduction of the A380 aircraft** such as new gates and aerobridges and strengthened runway and taxiway pavements. Further work is underway to upgrade taxiways for the B787 and other new generation aircraft such as the A350XWB;
- Sydney Airport has invested over \$40 million to improve and update T2 including new aerobridges, IT facilities, passenger waiting areas, retail and food and beverage facilities. T2 is now used by Jetstar, Virgin Blue, Rex, QantasLink and Aeropelican and is the busiest terminal at Sydney Airport. It is used by more than 10 million passengers each year;
- To ensure that aviation facilities remain safe and reliable, over \$50 million has been invested in **upgraded airport ground lighting facilities**, including installation of runway guard lights, re-cabling of all runways and taxiways, upgraded lights and lighting control system;
- Five enlarged runway end safety areas have been constructed in accordance with the new aviation safety requirements laid down by the Civil Aviation Safety Authority. Construction of the sixth and final runway end safety area is underway and is expected to be completed in 2010;
- 9 new remote aircraft parking positions have been provided in the south-west and north-east sectors of the airport to provide additional layover parking areas; and
- Completion of an airport-wide **Services Master Plan** to ensure that the aeronautical and commercial developments outlined in **Master Plan 03/04** could be supported by utilities provided by or to the Airport. Areas addressed were energy supply and distribution, gas, water supply, stormwater management, sewage management and communications.

---

## 1.4 Vision

As the ALC and operator of Sydney Airport, SACL's vision is 'to be a world-class airport management company'. Consistent with this vision, a goal of Master Plan 2009 is 'to create long-term value for SACL and its stakeholders'. A key factor in achieving this vision is successful long-term airport planning. Master Plan 2009 will achieve this by:

- facilitating introduction of new aviation technologies and new larger, quieter, cleaner and more fuel efficient aircraft;
- planning for forecast growth in aviation activity to ensure Sydney Airport can sustainably accommodate that growth;
- providing new business growth opportunities and efficiently using the existing assets at Sydney Airport; and
- regularly engaging with all key stakeholders to strike the right balance between the economic and employment benefits of the airport and the environmental impacts of the airport.

## 1.5 Purpose of the Master Plan

The purposes of Master Plan 2009 are to:

- update the existing Master Plan 03/04 and fulfil SACL's statutory obligations under the Airports Act 1996 as set out in Table 1.4;
- demonstrate Sydney Airport's ability to sustainably accommodate forecast growth in aviation activity;
- clearly communicate to SACL's business partners and other stakeholders the 20 year plan for Sydney Airport's future sustainable development; and
- provide long term planning certainty for airport customers and internal business units in relation to land use, infrastructure development and operational matters.

## 1.6 Development objectives

SACL's development objectives for the Airport are to:

- maintain a safe, secure and reliable airport operating environment;
- be a sustainable business which is a valued member of the community and a key economic driver for Sydney, NSW and Australia;
- operate the airport in an environmentally sustainable and responsible manner that addresses climate change and aircraft noise impacts;

- provide quality experiences for the travelling public and airport visitors;
- plan and develop new and enhanced capacity to cater for forecast growth;
- operate the airport to maximise the efficient use of existing infrastructure;
- ensure flexibility to meet changing user needs; and
- explore new business opportunities to enhance the Airport's value.

## 1.7 Planning principles and assumptions

The Master Plan Concept (see Figure S2) is based on a number of planning principles and assumptions. During the Master Plan preparation, assumptions were tested and validated. The planning principles or assumptions and the sections in which they are discussed are set out in Table 1.2.

## 1.8 Statutory requirements

The Master Plan is a key part of the Australian Government's regulatory framework for airport lessee companies such as SACL under the Airports Act 1996 (the Act). Amendments to the Act in 2007 introduced new or revised requirements in relation to Master Plans.

Master Plan 03/04, which covered the 20 year planning period to 2023/24, was approved on 22 March 2004. An updated draft Master Plan must be given to the Minister before the expiry of the current plan and, once approved, will replace the existing Master Plan 03/04. The 20 year planning period for Master Plan 2009 will cover the period to 2029.

This Master Plan has been prepared in accordance with the Act as amended. In summary, the Master Plan must:

- cover a period of 20 years;
- be reviewed and updated every five years;
- specify the ALC's development objectives;
- assess future needs of civil aviation users and other users;
- specify the ALC's proposals for land use and related development;

- include forecasts relating to noise exposure levels and the ALC's plans following consultation, for managing aircraft noise intrusion above significant Australian Noise Exposure Forecast (ANEF) levels;
- assess environmental issues and the ALC's plans for managing these issues; and
- be displayed for a period of 60 business days for public comment.

**Table 1.2 Planning Principles**

Planning principle or assumption	Relevant section
Aircraft operations will continue within the existing laws relating to the curfew, the aircraft movement cap and the slot management scheme	Sections 3.2 and 3.3
Access to Sydney Airport for regional NSW air traffic will continue	Section 3.3
Infrastructure maintained to support the principle of aircraft noise sharing	Section 3.4
Sydney Airport will remain the sole International and Domestic airport in the Sydney Basin for the duration of the planning period	Section 3.6
Airlines will continue to introduce larger, quieter, cleaner, and more fuel efficient aircraft replacing smaller capacity aircraft	Chapter 5
There will be no new or extended runways at Sydney Airport	Chapter 6
International air traffic will generally be processed in the existing International Terminal precinct and domestic and regional traffic will generally be processed in the Domestic Terminal precinct	Chapter 7
Wherever possible, incremental expansion of existing facilities will be used to deliver new or enhanced capacity	Chapters 6 to 10
Aviation industry processes will become more efficient and productive	Chapters 6 to 10
Adequate external transport infrastructure linking Sydney Airport with the Sydney CBD and the broader metropolitan region will be provided by the relevant authorities to ensure that passengers, freight, airport staff and visitors can conveniently access the airport.	Chapter 10
Pending the ultimate requirements of this Master Plan for aviation uses, some areas of the airport will be put to interim uses	Chapter 12
Sydney Airport will be operated in a sustainable manner	Chapter 14

**Table 1.3 Master Plan Preparation Process**

Master Plan stage	Date
ALC prepares a Preliminary Draft Master Plan (PDMP) and invites public comment on the PDMP for a period of 60 business days	This preliminary draft version of the Master Plan 2009 was exhibited for public comment from 22 September 2008 until 16 December 2008.
ALC prepares a Draft Master Plan (DMP) based on the PDMP and after giving due regard to comments received	December 2008 – February 2009
ALC submits the DMP to the Minister for Infrastructure, Transport, Regional Development and Local Government for his consideration	March 2009
Following Ministerial approval of the Master Plan, the ALC must publicly advise of the approval within 50 business days and make copies of the Final Master Plan available to the public	

The steps and related dates in the regulatory process leading to the approval of this Master Plan are set out in Table 1.3 and applicable sections of the Act and related regulations listed in Table 1.4. Sydney Airport demonstrated its commitment to effective consultation during the preparation of this Master

Plan. A description of the consultation process is provided in Chapter 2.

The approval of the Master Plan does not imply or provide development consent for any specific proposals identified in the Plan.

## 1.9 Terms used in this Master Plan

The glossary in Appendix A presents definitions of many technical and other terms used in this Master Plan while Appendix D presents definitions for land use terms used in the Land Use Zoning Plan (see Chapter 12).

To further assist readers, the following terms require particular explanation:

### Calendar year

Sydney Airport has recently changed its financial reporting arrangements to calendar years from

standard financial years (July to June). The forecasts and other information presented in this Master Plan reflect this change. Some historical data may still be based on financial years.

### Sydney Airport

Except where there is a specific requirement to refer to the corporate entity (Sydney Airport Corporation Limited – SACL) which is the ALC, all references to Sydney Airport imply reference to SACL.

**Table 1.4 Applicable sections of the Airports Act 1996 and related regulations**

Applicable sections of the Airports Act 1996 and related regulations	Airports Act 1996	Relevant section of the Master Plan
<b>70 Final master plans</b>		
(1) For each airport, there is to be a final master plan		Noted – see Section 1.8
(2) The purposes of a final master plan for an airport are:		
(a) to establish the strategic direction for efficient and economic development at the airport over the planning period of the plan; and		Section 1.6
(b) to provide for the development of additional uses of the airport site; and		Chapter 11
(c) to indicate to the public the intended uses of the airport site; and		Chapters 6 to 11 inclusive
(d) to reduce potential conflicts between uses of the airport site, and to ensure that uses of the airport site are compatible with the areas surrounding the airport.		Chapter 12
<b>71 Contents of draft or final master plan</b>		
(2) In the case of an airport other than a joint user airport, a draft or final master plan must specify:		
(a) the airport-lessee company's development objectives for the airport; and		Section 1.6
(b) the airport-lessee company's assessment of the future needs of civil aviation users of the airport, and other users of the airport, for services and facilities relating to the airport; and		Chapter 5
(c) the airport-lessee company's intentions for land use and related development of the airport site, where the uses and developments embrace airside, landside, surface access and land planning/zoning aspects; and		Chapters 6 to 11 inclusive
(d) an Australian Noise Exposure Forecast (in accordance with regulations, if any, made for the purpose of this paragraph) for the areas surrounding the airport; and		Section 14.2.1 and Figure 14.5
(da) flight paths (in accordance with regulations, if any, made for the purpose of this paragraph) at the airport; and		Figure 14.2
(e) the airport-lessee company's plans, developed following consultations with the airlines that use the airport and local government bodies in the vicinity of the airport, for managing aircraft noise intrusion in areas forecast to be subject to exposure above the significant ANEF levels; and		Section 14.2.1
(f) the airport-lessee company's assessment of environmental issues that might reasonably be expected to be associated with the implementation of the plan; and		Section 14.3
(g) the airport-lessee company's plans for dealing with the environmental issues mentioned in paragraph (f) (including plans for ameliorating or preventing environmental impacts); and		Chapter 14
(h) if a draft environment strategy for the airport has been approved—the date of that approval; and		Section 1.3
(j) such other matters (if any) as are specified in the regulations.		See below



**Table 1.4 Applicable sections of the Airports Act 1996 and related regulations (continued)**

Applicable sections of the Airports Act 1996 and related regulations	Airports Act 1996	Relevant section of the Master Plan
<b>Matters provided by regulations</b>		
(4) The regulations may provide that the objectives, assessments, proposals, forecasts and other matters covered by subsection (2) or (3) may relate to one or more of the following:		See below
(a) the whole of the planning period of the plan;		Section 1.8
(b) one or more specified 5 year periods that are included in the planning period of the plan;		No such periods specified in the regulations
(c) subject to any specified conditions, a specified period that is longer than the planning period of the plan.		No such periods specified in the regulations
(5) The regulations may provide that, in specifying a particular objective, assessment, proposal, forecast or other matter covered by subsection (2) or (3), a draft or final master plan must address such things as are specified in the regulations.		See below
<b>Plan to address consistency with planning schemes</b>		
(6) In specifying a particular objective or proposal covered by paragraph (2)(a) or (c) or (3)(a) or (c), a draft or final master plan must address the extent (if any) of consistency with planning schemes in force under a law of the State or Territory in which the airport is located.		Chapter 12 Appendix C
<b>Company to have regard to Australian Standard</b>		
(8) In developing plans referred to in paragraph (2)(e) and (3)(e), an airport-lessee company must have regard to Australian Standard AS2021 – 1994 (“Acoustics—Aircraft noise intrusion—Building siting and construction”) as in force or existing at that time.		Section 14.2.1 Table 14.1
<b>AIRPORTS REGULATIONS 1997 - REG 5.02</b>		
<b>Contents of draft or final master plan</b>		
(1) For paragraphs 71 (2) (j) and (3) (j) of the Act, the following matters are specified:		
(a) any change to the OLS or PANS-OPS surfaces for the airport concerned that is likely to result if development proceeds in accordance with the master plan;		No change required to the OLS or PANS -OPS
(b) for an area of an airport where a change of use of a kind described in subregulation 6.07 (2) of the Airports (Environment Protection) Regulations [see note 1] is proposed:		No such change of use proposed
(i) the contents of the report of any examination of the area carried out under regulation 6.09 of those Regulations; and		As above
(ii) the airport-lessee company’s plans for dealing with any soil pollution referred to in the report.		As above
(2) For section 71 of the Act, an airport master plan must, in relation to the landside part of the airport, where possible, describe proposals for land use and related planning, zoning or development in an amount of detail equivalent to that required by, and using terminology (including definitions) consistent with that applying in, land use planning, zoning and development legislation in force in the State or Territory in which the airport is located.		Chapter 12 and Appendix D
(3) For subsection 71 (5) of the Act, a draft or final master plan must:		
(a) address any obligation that has passed to the relevant airport-lessee company under subsection 22 (2) of the Act or subsection 26 (2) of the Transitional Act; and		There are no such obligations in relation the Master Plan
(b) address any interest to which the relevant airport lease is subject under subsection 22 (3) of the Act, or subsection 26 (3) of the Transitional Act; and		There are no such obligations in relation the Master Plan
(4) In subregulation (1):		
“OLS” and PANS-OPS surface have the same meanings as in the Airports (Protection of Airspace) Regulations.		Noted
<p>Note 1 Subregulation 6.07 (2) - Airports (Environment Protection) Regulations</p> <p>A change of use to which paragraph (1) (d) applies is a change that necessitates greater environmental protection measures because the use will result in the land being used in a way, or for a purpose, that will, or is reasonably likely to, cause greater harm:</p> <p>(a) to an aspect of the environment; or</p> <p>(b) to the health, safety or, in any respect, the welfare of, human beings.</p>		



SINGAPORE AIRLINES

singapore

SINGAPORE AIRLINES

Airbys A380 Singapore Airlines

