CHAPTER 8
PASSENGER TERMINAL FACILITIES

"THE NEW AIRPORT... IS A MAJOR STEP FORWARD FOR CANBERRA AS A DESTINATION FOR BOTH DOMESTIC AND INTERNATIONAL VISITORS... CANBERRA LOVES IT."

KATY GALLAGHER, MLA

8 Passenger terminal facilities

In its very first Master Plan in 1998 Canberra Airport recognised the need for a new passenger terminal and recorded its intention to develop one that reflected the Airport's role as the gateway to Australia's National Capital.

It was soon apparent however, the regulatory environment in the early days of airport privatisation in Australia was not conducive to even modest investment in airport infrastructure, let alone one of the scale required to replace the functionally obsolete terminal in Canberra. As a result, only critical additions were made to the terminal in the two five year periods of economic regulation that followed privatisation. These additions often lagged demand and, arguably, were suboptimal in terms of financial and operational efficiency.

The move to light-handed regulation in 2006 had immediate effect, with commercial agreements entered into between the Airport and airlines shortly thereafter. This paved the way for design and engineering work to proceed in 2007 on not only a new terminal, but an entirely new terminal precinct that included new roads, car parks, taxi facilities, utility upgrades, and new aircraft parking aprons. Preliminary construction works commenced the following year and the ensuing major construction works, undertaken over three stages to provide continuity of passenger operations, saw the wholesale redevelopment of the terminal precinct in early 2014.

Canberra Airport, its partner airlines and the passengers they share, now enjoy a terminal planned for the future, operationally efficient today, and designed to deliver the best possible passenger experience throughout the life of the facility.

8.1 OVERVIEW

The terminal precinct at Canberra Airport is located to the south-west of the intersection of the Airport's two runways and bounded by Pialligo Avenue on its western boundary, Brindabella Business Park to the south, and the Airport's Pialligo precinct to the west. Presumably, for one or more of these reasons, the site was originally chosen for the passenger terminal at Canberra Airport.

It is for all the same reasons the site was retained by Canberra Airport for the new terminal precinct, notwithstanding the complexities it presented in building an entirely new terminal on top of the existing facilities. When building new terminals it is not unusual for airports to abandon the sites of existing terminals in favour of greenfield sites minimising construction costs and operational disruptions. To abandon the site in Canberra would have been short sighted in the context of long term planning and economic advantages that the existing site held over all alternative sites at Canberra Airport.

Figure 8.1 – terminal precinct 2013

The terminal precinct has locational attributes that cannot be replicated elsewhere on the Airport site. It is the nearest point on the Airport to the Canberra Central Business District (and Parliament House); it is well serviced by arterial roads linking the Airport to Canberra, Queanbeyan, and the broader region. It is similarly well serviced by high capacity utility infrastructure and is conveniently located from an airfield planning perspective. The location also affords a good orientation of the terminal within the precinct, thereby maximising solar gain, passenger views of the airfield, and the outlook to the mountain vista surrounding Canberra.

The one site has seen the evolution of the passenger terminal, from the earliest days of the Airport and the legacy infrastructure inherited upon privatisation, to the interim terminal which resulted from necessary but restricted investments in the years post-privatisation, to the wholly new terminal precinct and all it provides by way of capability well into the future.

8.2 THE LEGACY TERMINAL (1998)

At the time of privatisation of Canberra Airport in 1998, the then existing terminal was already beyond its useful life. An overdue refurbishment would do little to disguise the fact the building was functionally obsolete; its 40 plus year infrastructure not able to properly serve the new age of aircraft due to poor planning and constraints on development.

These shortcomings were a result of the fragmented ownership of the buildings that comprised the Canberra passenger terminal – one part of the building was owned and operated by Australian Airlines / Qantas, another by Ansett and the middle link

section by the Federal Airports Corporation. Differing strategic objectives and priorities for capital expenditure, and competitive manoeuvring between the three building owners, conspired to undermine any cohesive plan for the terminal.

As a result, development of the terminal occurred over time with piecemeal additions in response to overdue demand, ad-hoc allocations from capital budgets and/or immediate competitive pressures – none of which provided a foundation for development of a properly planned and operationally efficient terminal.

Unfortunately, despite an obvious need for a new terminal, the plans that were developed and the negotiations held immediately post privatisation, it became apparent any further attempts by Canberra Airport to develop a new terminal in the immediate term would be frustrated, an unintended consequence of the then new framework of economic regulation applying to the privatised airports.

8.3 THE INTERIM TERMINAL (1999-2009)

Recognising the shortcomings of the legacy terminal, and the impediment to moving ahead with construction of the planned new terminal, plans were developed for major upgrades of the existing terminal facilities. While this, in part, continued the history of modifications to a functionally obsolete terminal, it delivered much needed infrastructure capacity and in so doing provided for the immediate growth of incumbent airlines and new entrant airlines alike.

Three stages of major upgrades between 1999 and 2002 delivered capacity and service enhancements to airlines and passengers and provided an interim solution to the demands placed on terminal infrastructure. The upgrades to the terminal included:

- The introduction of common-use terminal infrastructure (including check-in and baggage handling facilities) for the first time;
- New ground boarding infrastructure for turboprop aircraft operations;
- A 'doubling' (100 percent increase) in passenger screening capacity;
- A doubling of departure lounge areas;
- Additional aerobridges;
- A 20 percent increase in aircraft parking apron;
- A trebling of car park capacity;
- Expanded club lounge areas;

- Acquisition and integration of the former Ansett terminal into the common-user facilities; and

- Upgraded amenities and ancillary services (toilets, parents rooms, food and beverage outlets, taxi rank, and car rental facilities).

While these upgrades delivered much needed capacity additions, provided for the commencement of operations by new entrant airlines and enhanced the quality of service afforded to passengers at Canberra Airport, it could be argued these upgrades were inefficient in a longer term sense. The higher capital cost of incremental capacity (due to limitations of the existing building) and the relatively short life of some capital works (given they were tied to a building that was functionally obsolete) meant the upgrades were constantly scrutinised against the alternative, a wholly new terminal. Nonetheless, these upgrades were supported by major users (the airlines) and ultimately approved by the regulator, the Australian Competition and Consumer Commission. It was not until 2007, off the back of regulatory changes made by the Australian Government, the Airport could pursue the development of a new terminal in its own right.

8.4 THE NEW TERMINAL (2014 AND BEYOND)

Following the regulatory changes in 2007, Canberra Airport accelerated detailed design and finalisation of contract agreements with partner airlines and appointed a builder that allowed for commencement of an early works construction package in 2008 before commencement of construction on stage one of the new terminal in 2009.

Construction on stage two of the new terminal commenced following completion of stage one in November 2010. Similarly stage three of the new terminal commenced construction in March 2013 following completion of stage two works. Stage three works were completed in March 2014.

As evidenced by this timeline, major infrastructure projects have long lead times, not only for construction but for the significant planning and design required prior to commencement of construction. The new terminal at Canberra Airport was designed and procured in a heady environment of increasing economic activity, sustained growth in passenger volumes and readily accessible, covenant-light, low cost debt.

Long term commercial revenue contracts were entered into at the same time, crystallising some favourable assumptions that, unfortunately, have not been realised. By way of example, while passenger growth in Chapter 5 had been forecast consistent with previous Master Plan forecasts, due to external economic factors, Canberra Airport has recorded negative growth in each and every month since before stage one of the new terminal was completed in November 2010.

Notwithstanding the current downward trend in passenger volumes (and revenue), Canberra Airport maintains a long term positive view of the prospects for aviation activity at the Airport. The Airport, and the terminal particularly, is poised for a restoration of growth and the requisite infrastructure is built and fully commissioned, ready for use and with the flexibility to accommodate narrow-bodied aircraft or wide-bodied aircraft, low cost carriers or full service carriers, and domestic or international airline operations. Similar flexibility exists with other terminal users, be they ground handling agents, retailers, or other airline related service providers.

In overall terms the new terminal is five times the size of the facility it replaced. While the relationship of terminal size to capacity is not exactly linear, the new terminal undoubtedly delivers significant increases in capacity and capability. This, together with the flexibility afforded by the integrity of the building's planning and design, ensures Canberra Airport is well positioned to meet the demands placed upon its terminal infrastructure for the life of this 2014 Master Plan, and beyond.

8.5 TERMINAL CAPACITY

As indicated earlier, the terminal now has significant capability in terms of meeting current and future growth.

As well as addressing the capacity issues associated with the previous terminal facilities, Canberra Airport elected to build into the new terminal additional capacity to meet expected demand in the short to medium term. This additional capacity is beyond what is required by any contractual commitments to the airlines and, accordingly, the cost of this additional capacity is withheld by Canberra Airport until such time as it is required by airlines and/or passengers and/or other users of the terminal.

As also indicated, the integrity of the planning and design of the terminal provides for further additions of capacity without major rework of the existing building. Importantly, the process for delivering these additions is already agreed as part of long term commercial contracts with airlines. This ensures there is opportunity for significant increases in terminal capacity (beyond the current capability) to meet expected, and potentially unforseen, growth for the duration of this 2014 Master Plan.

The following Table 8.1 depicts the capacity of key functional areas of the old terminal (before) relative to the capacity built into the new terminal (now) as well as identifying the possible future capacity based on current design information and modest additional capital expenditure (future).

Table 8.1 – terminal capacity

Functional area	Measure	Before	Now[3]	Future
Check-in	Number of check-in facilities	14	20	44
Baggage Handling System inbound outbound	 Static bag capacity Bags per hour	 80 280	 210 1200	 480 1800
Boarding Gates aerobridge total	Number of gates	5 8	10 12	18 20
Aircraft parking bays	Number of concurrent Code C bays*	11	14	20
Security screening	Number of lanes	5	5	10
Departure lounge area	Square metres	1285	2934	5500
Club lounge area	Square metres	1560	6825	10400
Car spaces	Number of spaces	1107	3600	5100

*The new terminal has been built with capability for two international gates. Each of these gates can accommodate Code E aircraft.

The new terminal could accommodate eight million passengers per annum in its current footprint and with relatively modest additions could cater for 12 million passengers per annum.

8.6 MEETING DEMAND

The key measures used to assess the demand placed on terminal infrastructure over the life of this 2014 Master Plan are:

- A busy hour passenger forecast; and
- A regular public transport (RPT) apron stand demand analysis.

Busy hour passenger forecast

Canberra Airport busy hours are 8–10am and 4-6pm Monday to Friday. In addition the frequent Sydney and Melbourne shuttles mean that passengers arrive and depart the Airport consistently through the day from Monday to Friday. The current pattern of domestic passenger movements during busy hours is expected to continue, subject to future operations of low cost carriers which may utilise different hours of operations. In terms of international movements, the terminal and aprons have been designed to service all operations including those arriving and departing during busy hours.

[3] This figure includes latent capacity that has been built beyond current contractual commitments with airlines.

Table 8.2 – domestic busy hour passenger forecast

Year	Arrivals	Departures
2014/2015	1103	1076
2018/2019	1300	1268
2023/2024	1597	1558
2028/2029	1962	1914
2033/2034	2410	2351

The key functional areas of the terminal building are expected to have sufficient capacity, with additions to the current and any future capacity as required, to meet the domestic busy hour forecast in each year of this 2014 Master Plan.

RPT apron stand demand analysis

Peak demand for aircraft parking on the RPT apron at Canberra Airport typically occurs overnight, with the highest demand on Wednesday night, when a total of 13 aircraft are accommodated on the apron. The current demand for overnight parking of aircraft at Canberra Airport is shown in Table 8.3.

Table 8.3 – RPT apron stand demand 2014

Aircraft	Code	Mon	Tue	Wed	Thu	Fri	Sat	Sun
B737	C	3	4	5	4	4	2	5
E190	C	2	2	2	2	2	3	2
B717	C	1	0	1	1	1	1	0
Q400	C	2	2	2	2	1	2	2
ATR	C	3	3	3	3	3	1	2
Total		**11**	**11**	**13**	**12**	**11**	**9**	**11**

The current peak demand for aircraft parking can be readily accommodated within the current capacity of the RPT apron, which is 14 Code C aircraft parked concurrently. The new terminal has been built with capability for two international gates. Each of these gates can accommodate Code E aircraft.

It is noted there is additional apron parking available during peak periods on both the general aviation apron and the Fairbairn apron which, collectively, can accommodate aircraft of any size. Given the current surplus in apron capacity, and the planned additions to apron capacity in future, Canberra Airport is well positioned to meet increased demand in aircraft parking including schedule international operations over the life of this 2014 Master Plan.

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