Melbourne International Airport: 1354735

Melbourne expands in pursuit of international growth

The Australian airport is growing both physically and operationally

The international terminal expansion project at Melbourne is the biggest development the airport has undertaken since it commenced operations in 1970. Work was formally launched in 2007 and will continue until November 2011.

The terminal development comprises a series of projects costing around AUD330 million (USD309 million) in total. "We opened the international in-bound baggage system in September 2008, followed by the new gates facility on 1 December 2009," says Simon Gandy, executive general manager of Melbourne Airport. "This has added 7,000 m^2 to our international departure operations and has provided three new operational gates and five aircraft parking positions, three of which can accommodate the A380."

Melbourne Airport already features two A380 stands and the increase to five will come just in time to accommodate airlines' growth aspirations, particularly Qantas, which announced in mid-2010 plans to expand its A380 operations at the airport.

The arrivals baggage system and new gates formed Stage 1 of the expansion plan and a new outbound passenger screening and customs area, the first part of the next stage of the airport's new development, was opened on 1 March 2010. As with the earlier work, this was achieved on time and within budget.

Previously customs was sited ahead of security and passengers would proceed into the duty-free area. Space constraints resulted in a remodelling of the whole area, which has been increased in size and provides greater capacity for future security operations – particularly relevant given recent security announcements made by the Australian government.

The space gained by the remodelling will be used to test and trial security equipment such as full-body imagers, multiview x-ray scanners and explosives trace detection equipment. The new outbound screening and customs area enables Melbourne to manage queues in a 'smart' way that not only ensures passengers do not queue for

Sydney deflects criticism over charges

Sydney Airport has responded robustly to criticism from Giovanni Bisignani, IATA's director-general and chief executive officer, that its charges are too high.

In a speech to the Australian National Aviation Press Club in late August, Bisignani said that charges at Sydney made it the ninth-costliest airport in the world in 2009 – compared with the 34th in 2000 – despite posting a pre-tax earnings margin of 82 per cent. He stressed the need for "profitable airport partners" that are "effectively regulated so that they do not abuse their monopolistic position".

Sydney Airport disputed Bisignani's statistics, arguing that, when comparing international fees and charges, any relative changes in currencies must be factored in. An airport spokesperson told *Jane's*: "After factoring in changes to the value of the Australian dollar since 2002, Sydney's world ranking has actually improved, from 22nd to 19th, relative to other world airports."

Bisignani also described as "critical" the need for a second airport at Sydney, adding: "We need a decision on a plan to maximise the capabilities of the current airport and to determine a location and timeline for the new airport." Sydney responded that the government-approved master plan "clearly demonstrates that the airport can accommodate forecast growth until at least 2029 because airport facilities – including terminals, freight facilities, taxiways, hangars, aircraft parking, airport roads and car parking – will be progressively upgraded and expanded over the next 20 years". ***Ruth Barnard***

Melbourne Airport in Australia is expanding its international terminal.

more than 10 minutes but also means the airport can deliver an improved service while reducing costs. Gandy tells *Jane's*: "As these [lower] costs are passed on to the airlines, it's really important we deliver great-quality security, good customer service, and keep our prices as low as possible to offer our customers a compelling operation."

New and improved

The next phase of Stage 2 involves construction of a new international departure lounge, which is set to open on schedule and on budget in mid-November. Also included are a new duty-free area and additional food and beverage stores, doubling the size of the previous site. The new departure lounge has 10 m-high ceilings and huge glass walls offering panoramic views of the apron area.

The area beneath the new international departure lounge will include a new outbound baggage system with Crisplant tilt-tray units; it replaces the current pusher and lateral system. The tilt tray operates by tipping a bag off rather than pushing it in another direction. The new energy-efficient baggage-handling system will provide fast, accurate baggage sorting and supports expansion in passenger capacity while minimising environmental impact. It is due to open in mid-November and will enable the upper and lower sections of the departure lounge to work in tandem. This is important for saving time and costs and will allow the airport to decamp parts of the old baggage system and address some of the works required for future arrivals expansion, which will include additional arrivals reclaim units in late 2011.

Melbourne Airport is actively seeking to attract carriers offering direct international services rather than passengers flying domestically to Sydney for connecting international flights. In late 2009, Qatar, Etihad and V Australia launched international services from Melbourne and in early 2010, Jetstar announced that it will operate a Melbourne-Singapore service. On 22 June, Air India announced the first direct flight to Delhi, choosing Melbourne over Sydney; and in July, Air China announced daily services to its Melbourne operations and a new direct service between Melbourne and Beijing. The airport saw a 13 per cent increase in international traffic in 2009 and the signs mid-way through 2010 are that this trend is set to continue.

Melbourne is also reviewing its domestic operations, which account for 80 per cent of traffic at the airport. While domestic demand saw more modest growth than the international market in 2009, traffic to and from other Australian airports nevertheless increased by 4 per cent despite the prevailing economic conditions.

In 2009, Avalon Airport – Melbourne's second largest – pledged to establish a low-cost international terminal as an alternative to Melbourne. Gandy welcomes the competition. "We will be focused on our strategy, which is to provide great service at lowest unit costs for all our airlines," he says. "This is delivering significant benefits in our international business and was one of the reasons why Tiger [Airways, a regional low-cost carrier] chose Melbourne Airport as its launch site in 2007. We will continue to work very closely with the team at Tiger and all our low-cost operators to ensure their operating models work well and continue to grow here," Gandy adds. While he does not see services shifting to Avalon, he acknowledges that potential incremental growth at the smaller airport could pose a challenge.

Melbourne Airport is passing through the third year of its five-year Environmental Strategy plan, initiated in 2008. Performance is reviewed each year by the environment management committee, which also tracks evolving 'green' technologies such as co-generation and tri-generation.

Co-generation involves generating more than one type of energy from a single source; for example, a gas-fired generator could generate electricity with the by-product of burning gas used to provide heating. With tri-generation, heating, cooling and electricity are generated from a single source.

Environmental initiatives at Melbourne focus on the use of equipment and methods of constructing new buildings. At the new international gates, for example, grey water from rainwater tanks is used for flushing toilets. A large concrete slab within the building acts as a thermal heating and cooling element to maintain the environment, which is controlled up to a height of around 2.5 m. As the international terminal is 10 m high, heating and cooling are concentrated at passenger level.

Security trials

The introduction of body scanners is one of the most controversial security measures that airports worldwide are planning to implement. In line with plans announced in early 2010 by the federal government, Melbourne is committed to trialling body scanners between December 2010 and April 2011, with operational installations to follow soon afterwards. Of the AUD200 million allocated by the government for extra airport security, around AUD28.5 million is earmarked for the deployment of additional x-ray and body scanner equipment at major Australian airports. This includes introducing liquid bottle scanners, multiview x-ray baggage screening and body-imaging systems.

Melbourne Airport will trial x-ray backscatter and millimetre-wave body scanners, focusing not only on the systems' detection capabilities but also on their throughput rate. These trials will be purely voluntary. The government advises airports on the most appropriate security screening equipment to use, in effect leaving each airport to decide which technology offers optimum threat detection while also aiding passenger flow.

Another project recently completed at Melbourne is the commissioning of a Category III Instrument Landing System (ILS). The ILS improves reliability and safety in marginal weather conditions, enabling the airport to maintain operations and reduce the number of times aircraft are turned away. Melbourne is the first Australian airport to use Cat III. Gandy says: "As a curfew-free airport it's important we minimise the number of times an aircraft has to be turned away and the investment in Cat III has already proved its worth through the early winter months."

Future projects at Melbourne Airport include construction of a new 78 m-high air traffic control tower by Hansen Yuncken.

Work has also begun on runway maintenance overlays, which involves resurfacing both runways. The airport intends to remain operational throughout the maintenance period; portions of each runway will be closed at night so that work can be carried out. The project is expected to be completed in mid-2011. *Ruth Barnard* ■

Melbourne Airport – selected equipment suppliers/contractors

Baggage-handling system	BCS Airport Systems
Passenger boarding bridges	Reidy Airport Terminal Equipment; Airport Equipment Ltd
Passenger/baggage screening	L-3 Security & Detection Systems; Rapiscan Systems

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