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The A380

Auckland airport: getting ready for the new generation of aircraft



Auckland Airport is gearing up for the arrival of the new generation of aircraft. The Airbus 380 is the largest commercial passenger aircraft ever built and carries around 550 passengers. It is very important that Auckland Airport is able to accommodate the aircraft, to ensure the continued success of New Zealand's travel, tourism and air freight industries. Current airport infrastructure is being further developed to enable A380 operations. Auckland will be among the first group of airports in the world to be A380-capable.

What is the A380?

The A380 is the largest commercial passenger aircraft ever built and requires modifications to airports around the world because of its size. It is a fully double-deck aircraft with a wingspan and length greater than that of the largest passenger aircraft currently in service, the Boeing 747-400.



For more information on Airbus visit www.airbus.com

Comparison	Boeing 747-400	Airbus 380-800
Passengers	416	555
Wingspan	64.4m	79.8m
Tail height	19.4m	24.1m
Fuselage length	70.7m	72.7m
Wheels		
Nose	2	2
Main	16	20
Max. take-off weight	396,000 kg	560,000 kg
Range	13,450 km	15,000 km

Note: data for 747-400 passenger and A380-800 passenger model 3-class configuration. Data from Airbus and Boeing.

Why does Auckland International Airport need to be A380-capable?

Getting Auckland Airport equipped for the A380 is most important. New Zealand will become a 'second-tier' destination if it is not A380 capable. It is important not only for tourism but also for air freight – two freight-specific airlines have also announced orders – FedEx and UPS.

What will the introduction of this aircraft mean for Auckland?

It will bring more passengers per flight than any other aircraft. This means passenger processing systems will need to take account of the higher passenger volumes per flight. The airport masterplan takes into account the next 20–50 years at Auckland Airport. This includes the requirements of the A380 as well as other new aircraft such as the Boeing 787.

Why is this important?

The A380 is the largest commercial passenger aircraft ever manufactured. It impacts on a number of parts of the airport system, including:

- Runway and taxiway width
- Apron hard stand width and length
- Terminal gate width
- Passenger processings

Since World War Two the aviation industry has seen a continuous 'up-gauging' of aircraft. The introduction of the A380 is less of a jump in scale for airports than in the 1970s when the move from Boeing 707's to the 747 'jumbo jet' got under way.

What is Auckland Airport doing for the A380?

Auckland Airport and consulting engineers Beca have been working since 1998 with US-based aviation consultants Landrum and Brown, German-based Dornier Consulting, the airlines that intend to fly the A380 into Auckland, as well as manufacturer Airbus, to determine what needs to be done to the airport and the staging of necessary developments over time.

Airports around the world are working together to prepare for this aircraft. They are using their combined knowledge base, rather than all working separately on development plans.

What exactly needs to be done to accommodate the A380?

Planning and development is well underway on projects to accommodate the A380.

- Auckland Airport has room for the A380 at two gates on the international terminal
- One of Auckland Airport's new remote hard stands has been dimensioned for A380 services
- Auckland Airport is adding a 7.5m asphalt strip down each side of the main runway. This widening does not need to be aircraft load-bearing but will be in place for the wider overhang of the A380 engines.

- The runway is currently 45m wide (load-bearing). With 7.5m asphalt shoulders on either side the width will increase to 60 metres
- Taxiway corners will be widened.

A380 services are expected at Auckland Airport by mid / late 2007.

Which airlines are expected to bring the A380 into Auckland?

Seven airlines that fly scheduled services to Auckland have placed orders for the A380 although not all of them are expected to fly the aircraft on Auckland routes.

	Passenger	Freight
Singapore Airlines	10	—
Emirates	43	2
Qantas	12	—
Korean Air	5	—
Malaysia Airways	6	—
Thai Airways	6	—
Federal Express	—	10

Data from Airbus and airline public statements.

How much will becoming A380-capable cost?

The cost at Auckland Airport will be less than at many airports overseas because not as many modifications are needed to existing buildings. At this stage, around \$27m is being spent on a variety of works around the airport.

Auckland International Airport is working with the airlines to determine the extent of A380 capacity needed at Auckland. The airport will definitely be able to accommodate the aircraft when it first comes in late 2007. After that, work to provide the necessary terminal facilities can be undertaken incrementally over time.

The Pier B project, (a new pier to the west of the existing international terminal), will be built incrementally. It may have up to five gates that are equipped to handle the A380. Dual-level airbridges will be used for passengers to embark and disembark on both levels of the aircraft on Pier B.



Auckland Airport is widening its runway shoulders to accommodate for A380 engines. Initially, two aircraft gates at the end of the existing pier will be able to accommodate the A380.

