Airbus A380

Australian Airports

Operational Issues

Presented by Cam Spencer

General Manager - Operations

Brisbane Airport Corporation

BAC Australia

Brisbane Airport Corporation Ltd

Airbus A380

A380 Australian Airport Operational Issues

- There are no problems with the A330 however there are some issues to solve

- We will look at the operational issues in these areas
  - -Airfield
  - -Terminal
  - -Miscellaneous/Costs to Operator

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

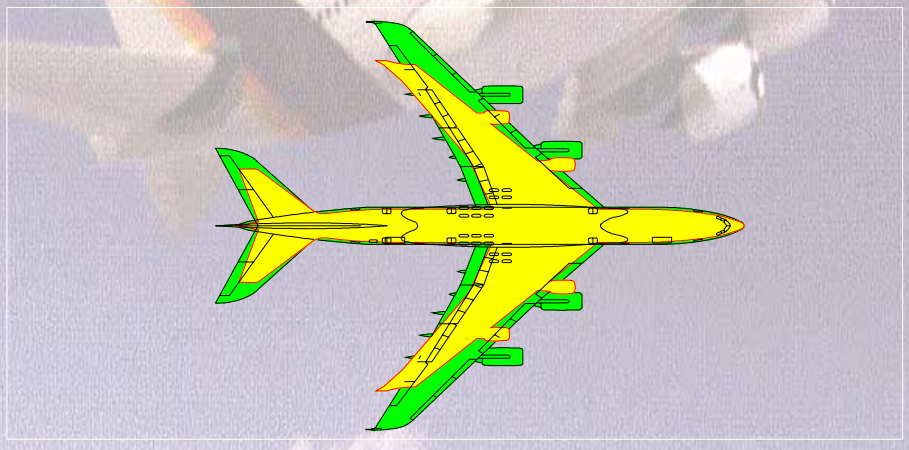
Airfield

Firstly look at the differential between and A380 and the 747-400

- *B747 – 400 ER
  Code E
  Box 64.4m x 70.66m

- A380
  Code F
  Box 78.60m x 73.60m

- A comparison of what this means to the airfield is as follows:



BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

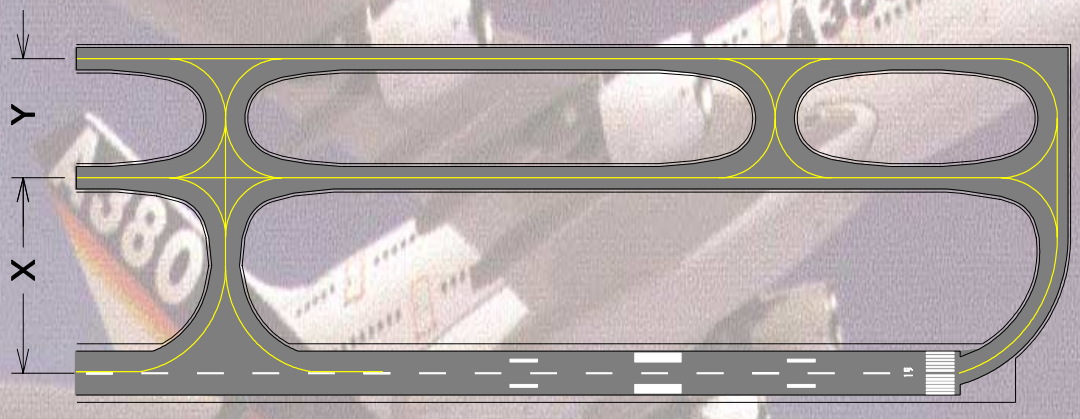
Aircraft

	Runway Width	ACN No	Passengers	MTOW
B747	45	>97	396	400
A380	45/60?	>103	548	555

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

Airport	Runway Length	Runway Width	PCN	Taxiway Runway Separation
Perth	✓ (3444)	(45)?	55	X **E**
Melbourne	✓ (3657)	(45)?	79	X **E**
Sydney	✓ (3962)	(45)?	67	X **E**
Brisbane	✓ (3500)	(45)?	97	✓ **G**



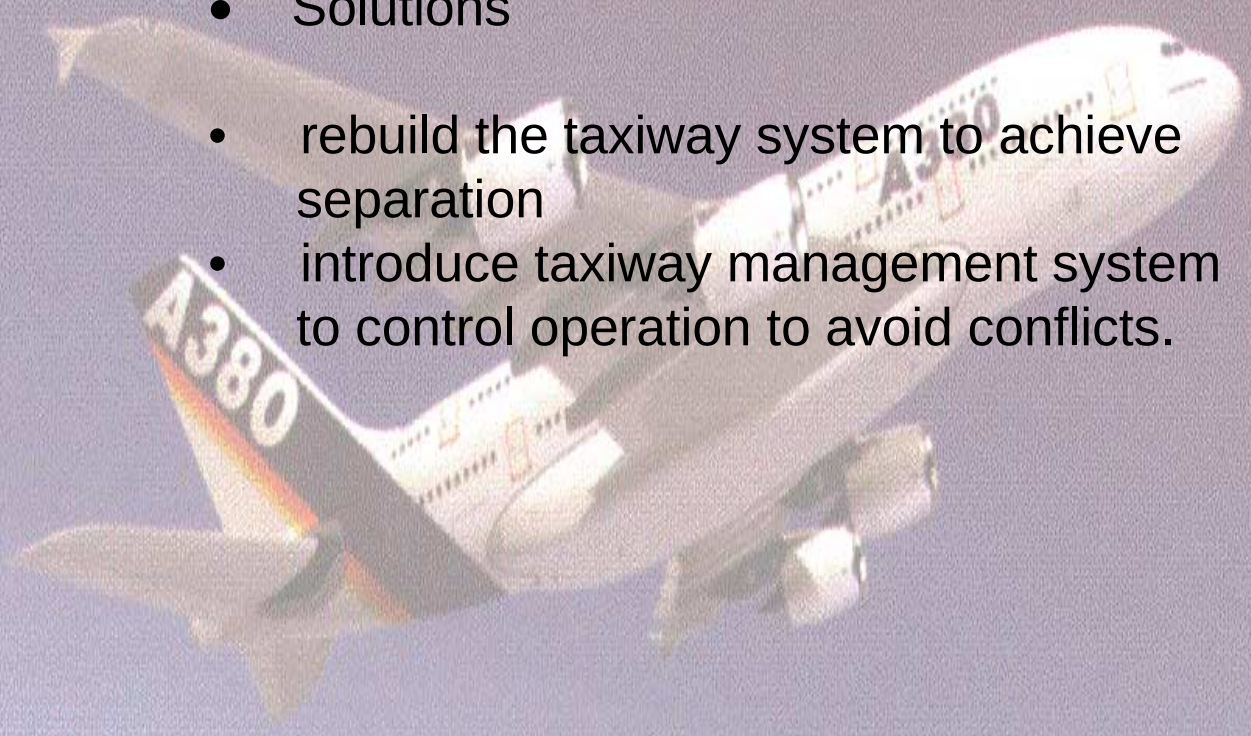
		X	Y
CODE E	(B747)	182.5	80.0
CODE F	(A380)	190.0	97.5
CODE G		200.0	122.0

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

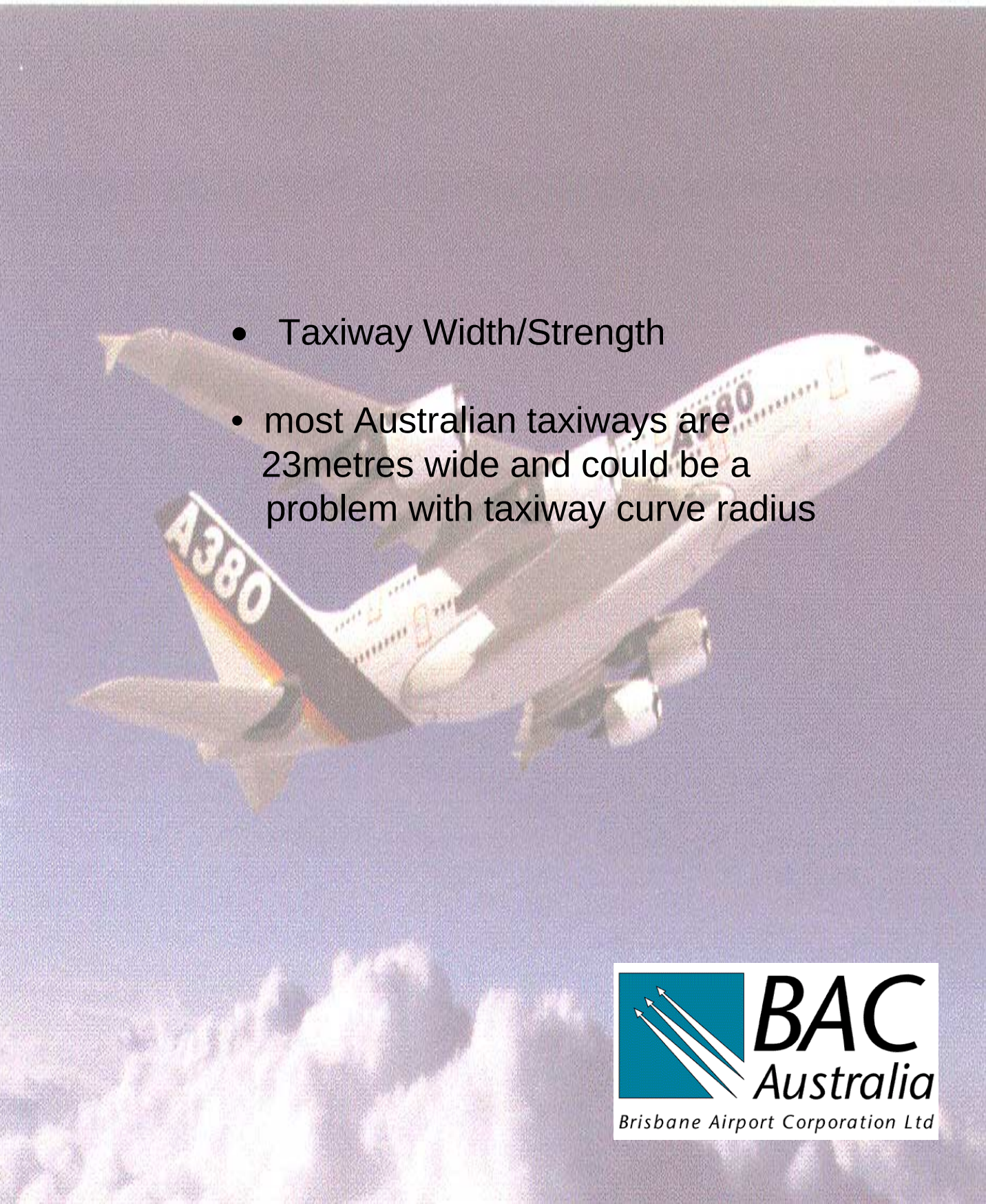
- Solutions

- rebuild the taxiway system to achieve separation
- introduce taxiway management system to control operation to avoid conflicts.



BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380



- Taxiway Width/Strength
- most Australian taxiways are 23metres wide and could be a problem with taxiway curve radius

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

- Aprons
  Some solutions are:
  - additional length of A380 could cause problem with width of apron
  - or load through second doors?
  - or tugs to project onto perimeter road?
  - Bay spacing will have to increase or down grade adjacent bays
  - Strength of aprons
    Not much change to B747 – 400

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

Terminals

- Size issues

- Gate spacing as above
- Passenger processing
  - increase of numbers of 39%/aircraft
  - loading and unloading increase of time of 39%?
  - time on bay to increase by 20 minutes
- Refuelling – maybe an increase in time for refuel
- Check-in – based on a 747 of 8 counters/flight
- Check-in for an A380 requires 11 counters/flight

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

- Gate Capacity

  - seating/queuing
  - single aerobridge head
  - maybe need to introduce double heads
  - need to possible have two level access to aircraft

- CIQ Increases of peak load due to arrival of additional passengers at peak

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

Miscellaneous/Costs to Operate

- Issues
- Cost to reconfigure airport to accommodate A380 including taxiway/runway separation
  - reduced capacity if not separated
- Cost to increase aerobridge spacing
  - reduced usability of adjacent gates if spacing not increased
- Cost of taxiway widening/increase radius of curves

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

Miscellaneous cont.

- Issues

  Cost of additional check-in counters
- Cost of double headed aerobridges
- Cost of additional runway strength
- Cost of additional runway width 45/60?
- Cost of additional CIQ facilitation
- Fire Service will have to be upgraded from Cat 9 to Cat 10
- Noise should not be a problem based on published information
  - maybe a reduction due to reduced frequency

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

There are some advantages to the airport with the introduction of A380 operations

- reduce frequency and consequently less pressure on slots
- increase of charges of 39% per aircraft based on passenger charges
- increase of charges of 39% based on MTOW compared with 747 400 operations

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

Airport Choices

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

1. Adapt operations to accommodate A380 if possible with minimum expenditure eg:

- controlled taxiway operations
- downgrade adjacent bays in terminal

BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

2. Re-configure airport to accommodate A380 eg:

- reconstruct taxiways and runways to achieve separation
- re-space aerobridges
- introduce double headed aerobridges
- This is an expensive option and the recovery of costs will be difficult

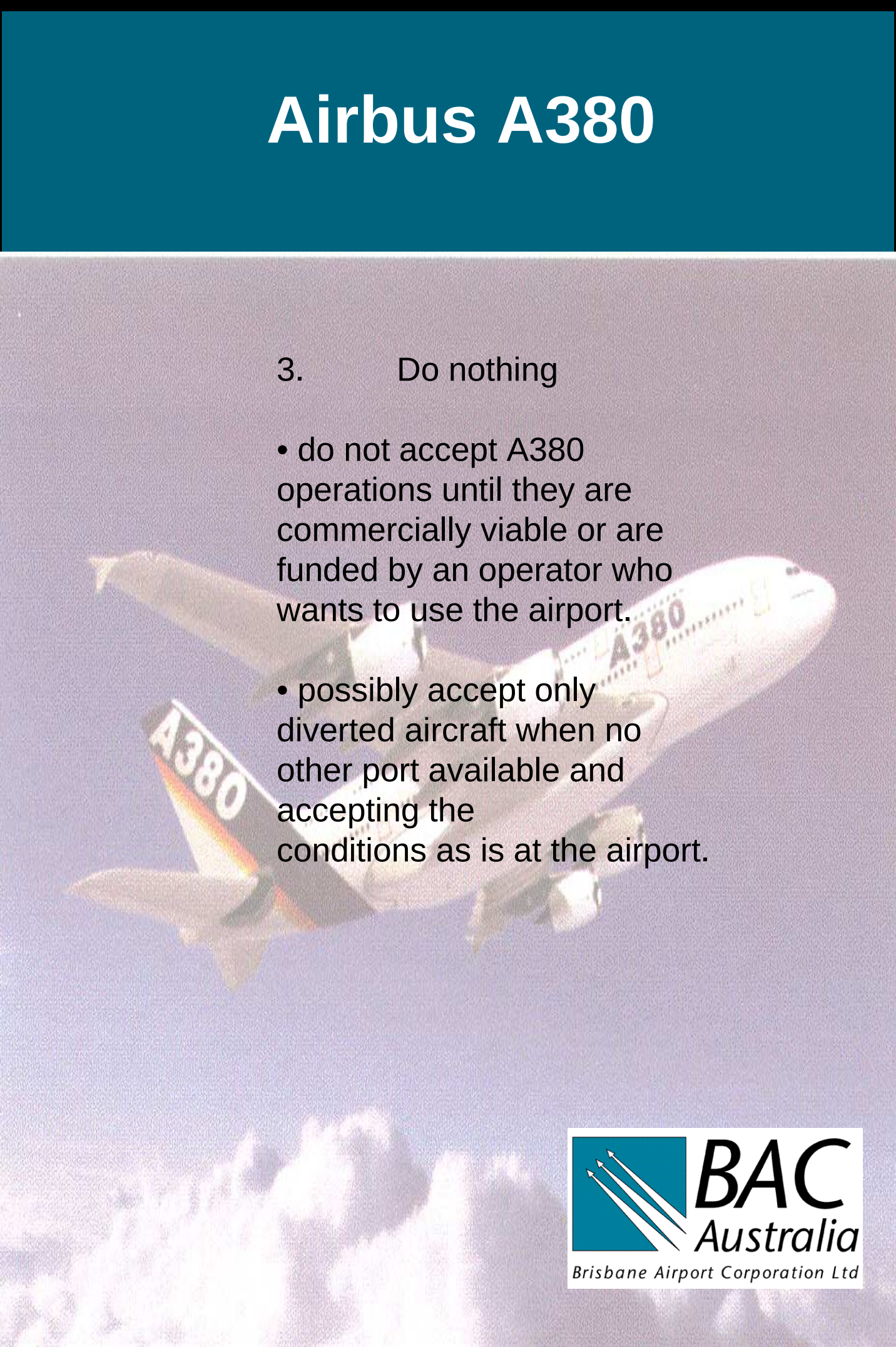
BAC Australia
Brisbane Airport Corporation Ltd

Airbus A380

3. Do nothing

• do not accept A380 operations until they are commercially viable or are funded by an operator who wants to use the airport.

• possibly accept only diverted aircraft when no other port available and accepting the conditions as is at the airport.



BAC Australia
Brisbane Airport Corporation Ltd