

Current Operating Procedures & Movement Statistics

Within the Archerfield Airport Preliminary Draft Master Plan 2011 (PDMP), Archerfield Airport Corporation (AAC) proposes a number of initiatives to improve the usability of the airport and assist its development as Brisbane's Metropolitan Airport. The changes are neither radical nor urgent but will assist in the development of a significant resource of South-East Queensland that is currently underutilised. The following information provides a background to the Airport's current operating procedures along with a number of graphs summarising movements over the past 5 years.

Background

Archerfield Airport has a multi-runway configuration comprising two parallel runways in two different directions. Parallel 10/28 runways and their complementing full-length taxiways have sealed pavements. The main runway, 10L/28R, and its supporting taxiway are both equipped with pilot-activated lighting to aid night-time flying. It is also aligned to provide near optimal utilisation taking account of all-hours wind conditions.



Figure 1.1 – Airport layout

The 04/22 parallel secondary runways and taxiways are grassed surfaces and are used by light aircraft during the day when strong winds are blowing from the North or South. During such conditions, light aircraft may find it difficult to land on the main 10/28 runways and so the 04/22's are provided to assist them.

As mentioned, runway selection will depend on the direction of the wind at the time of flight. The ideal situation is when the aircraft points directly into the oncoming wind. This helps the aircraft take-off and land with minimal runway use and negates side-ways movements or 'yawing' caused by crosswinds. Crosswinds tend to have a greater effect the lighter an aircraft is and so play a considerable role in runway determination at Archerfield where the majority of movements are currently made up of light, training aircraft.

Generally speaking, flights for fixed-winged aircraft can be categorised into one of the following four movement types:

- Arrivals - enter Archerfield Control Zone (CTR) at 1500ft until joining the circuit and descending to 1000ft
- Departures - climb to 1000ft until outside the Archerfield CTR
- Touch and Go's (circuits) - a training circuit conducted at 1000ft whereby an aircraft lands, continues rolling and then takes off again, and
- Full Stops - an arrival following a training circuit.

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- ANEF & Flight Paths
- N70 Noise Contours
- Land Use & Surrounding Roads

Circuits at Archerfield are conducted by operating simultaneous, opposite direction (contra) flights on the set of parallel runways that favour wind directions at the time. For the majority of flights, primary runways 10/28 are used, however when the mean crosswind component exceeds 12 kts on these runways, Air Traffic Control (ATC) will direct pilots to use the 04/22 secondary runways. If traffic levels permit, one runway will generally be used for circuit training with the other used for arrivals and departures.

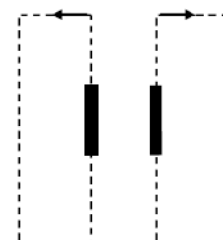
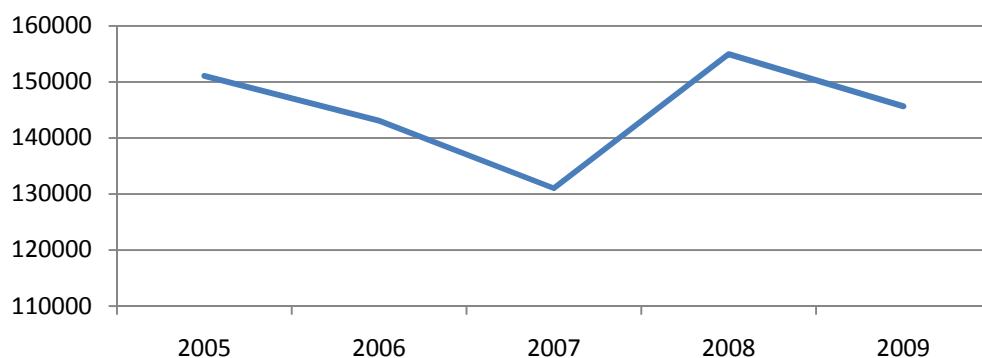


Figure 1.2 – Contra-rotating circuits

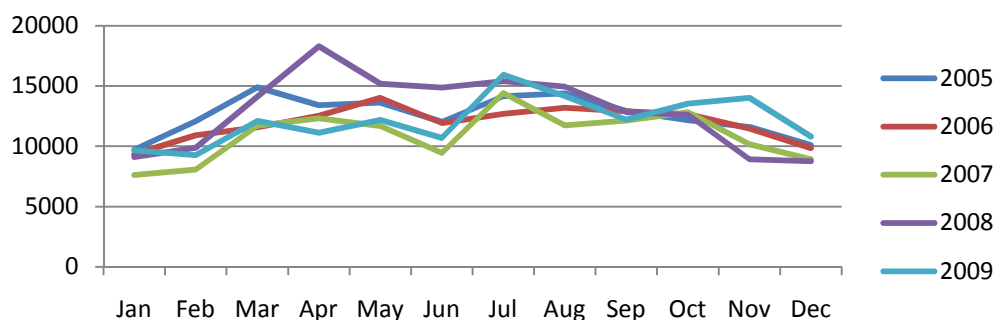
The following graphs indicate the number of movements, hourly distribution, % use of each runway and % number of movements on Weekdays vs. Weekends that have been recorded at Archerfield during the past 5 years.

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Annual movements for years 2005 - 2009

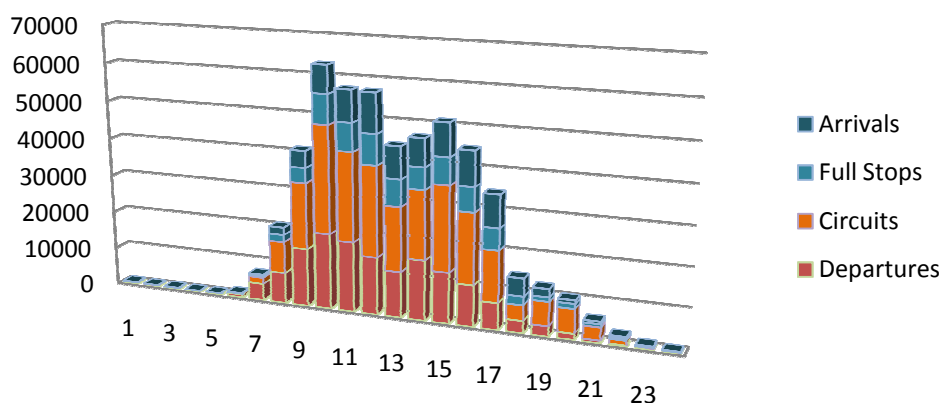


Monthly movements for years 2005-2009

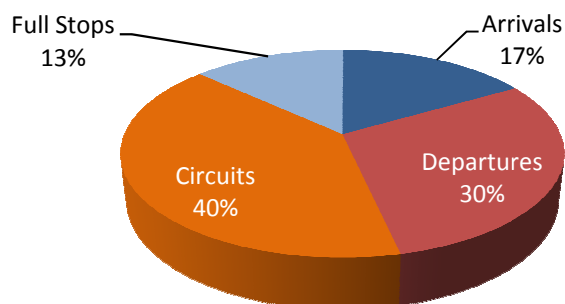


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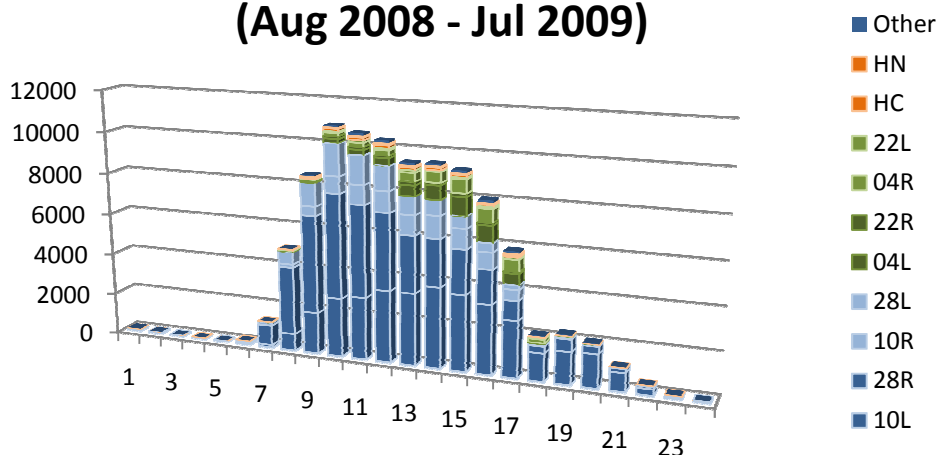
Hourly distribution of flights per movement type (2005 - 2009)



Distribution of flights per movement type (2005 - 2009)

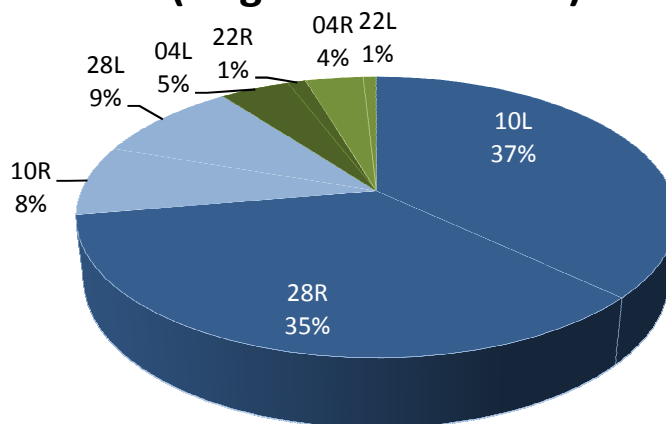


Hourly distribution of runways (Aug 2008 - Jul 2009)



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Distribution of runway usage (Aug 2008 - Jul 2009)



Runway	Percentage Use		
		Day	Night
10L	44.2	35.7	63.5
10R		8.5	
28L	45	9.7	
28R		35.3	36.5
04L	8.7	4.8	
04R		3.9	
22L	2.1	0.8	
22R		1.3	

Table 1.1 – Percentage use of each runway (Aug 2008 – Jul 2009)

Weekday vs. weekend movements (2005 - 2009)

