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# REGIONAL AVIATION CLUSTERS AND THEIR REAL PROPERTY PARAMETERS – AN AUSTRALIAN SURVEY AND ITS WIDER IMPLICATIONS

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#### **ABSTRACT**

Australia's capital city airports are recognised as critical pieces of infrastructure and as major economic nodes in their own right. Much less is known about the larger regional airports which also provide key transportation links and typically support business clusters and land uses related to aviation and aeronautics.

Purpose: This paper reports on a recently completed survey of businesses adjacent to airport facilities in an Australian region to ascertain locational determinants, key characteristic clusters and their tenure and lease issues.

Methodology: The research is based on a literature review, the inputs of key informants, and structured face-to-face interviews with practically all business in the cluster.

Findings: The research would indicate that, while there is an obvious physical need for many of these businesses to be located with access to aircraft and tarmac facilities, the link between the resident firms may not be as strong as it might appear. Further, the almost inherent volatility of the general aviation sector results in special and sometimes difficult property and lease dealings with the airport owners.

Implications: Major regional airports, their airline operations and general aviation clusters in Australia share many common characteristics in function, operations and property dealings/clusters. It would therefore be reasonable to expect that the findings from this research would also have implications to provide support for such economic clusters or for the management of property resources at the numerous similar facilities in Australia, New Zealand and across the wider Asia Pacific.

Keywords: Regional Airports, General Aviation Clusters, Property considerations – Airports, Australian Airports, Property survey

# **INTRODUCTION**

Airports and aviation-related land uses provide significant infrastructure at a national, state and regional level, and represent high levels of often specialised property investment and business activity.

Airports across Australia provide \$17.3b (or 1.2 per cent) of GDP and approximately 115,200 FTE jobs (Deloittes Access Economics 2011). Such activities are particularly concentrated around the airports in the state and territory capital cities although it is important to note that numerically this is a very small proportion of the more than 400 civil airports around Australia.

Most of those other airports (principally those in regional areas) are owned by local government and as many as 50 per cent of those reportedly run at a loss each year (Australian Airports Corporation 2012). The fact that these owners are willing to sustain such long-term losses reflect their recognition of the wider economic impact and value of such infrastructure to the host region.

In regional areas, the actual number of jobs involved in aviation is relatively small compared with the wider workforce. Nevertheless, these employment levels belie the significant impact of the sector on the regional economy as a whole. Within any major region, the aviation sector (and its attendant infrastructure) provides an essential transportation hub and linkages for much of the business sector – benefitting tourism, exporting firms and professional and community services in particular. Secondly, the sector and its firms bring new, high levels of skills, innovation and relatively highly paid permanent jobs to those regions.

There are specific locational and land use/property implications in this. As shown in the study below, firms involved in the sector exhibit a strong tendency to cluster. At those locations, which are typically around airports/landing facilities, they create highly specialised enclaves with idiosyncratic needs and issues. As would reasonably be expected, most of the features of the clusters are beneficial to the resident firms. Perhaps

surprisingly, however, such an aggregation in an airport environment, and with a single landlord, also creates some particular detriments and challenges.

It needs to be noted that the aviation sector, broadly defined, is heterogeneous and the nature of clusters varies in size and function. The largest are metropolis developments – huge airport facilities and commercial centres that are now fundamental to the networking across developed countries and to the linking of global leading cities (Kasarda 2011). At a second, lower tier are smaller regional clusters which are typically dominated by general aviation activities – pilot training, parts and maintenance, manufacturing, consultancies, sales and the leasing of airport facilities. Some of these also accommodate commercial passenger and freight services.

Each of these subgroups has its own individual characteristics and specific issues and, even though they are often physically clustered, the level of interaction between firms varies substantially.

In 2015, researchers from the University of the Sunshine Coast, supported by the Sunshine Coast Regional Council and its Aviation Taskforce, undertook a profile study of the aviation sector in the Sunshine Coast – a region of about 320,000 people about 110 km north of the state capital, Brisbane. Its aviation sector cluster has two nodes – one adjoining the main regional airport at Marcoola (Sunshine Coast Airport) and a secondary aerodrome at Caloundra (see Figure 1).

Within this wider sectorial study, this investigation had particular reference to a range of real property, tenure and leasing issues.

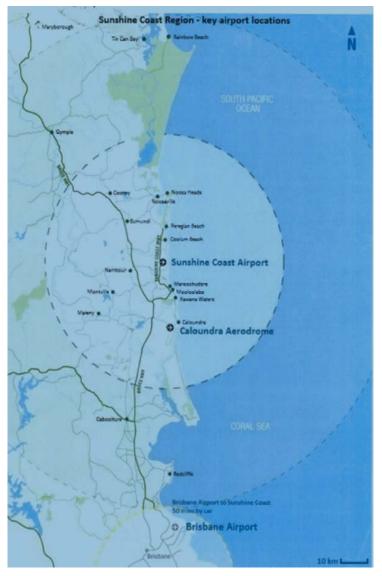


Figure 1. Sunshine Coast region showing Sunshine Coast Airport & Caloundra Aerodrome

There is a large body of literature and research into sectoral and regional development and into cluster development in general both in Australia and internationally. However, very little research appeared to exist

into Australian regional aviation clustering and almost no studies into that sector requirements and use of property resources.

By way of example, this study represented the first formal investigation and analysis of such matters in the Sunshine Coast region, even though the region's main airport at Marcoola had been operating on a commercial basis over half a century and has long been recognised for its economic and wider importance to the region.

Such a study has proven important not merely because it has provided the first analytical study as to the nature of and the primary issues for the sector in the region, but because it has identified a number of real property matters that may challenge the long-term viability of a number of the resident firms.

The scale, clustering and tenure arrangements for the aviation sector on the Sunshine Coast appear fairly similar to many other larger provincial centres elsewhere in Australia. It would therefore be reasonable to hold that a number of the observations and issues identified for the aviation land uses in this region would be of relevance to comparable airports across regional Australia.

To better understand the sector in this region, a research partnership between the Sunshine Coast Council and the University of the Sunshine Coast was established to identify and quantify the sector and, from that, to better understand any specific issues or opportunities that emerged from those investigations and discussions with informant firms.

The investigation was based on a literature review and review of unpublished records held by stakeholders and was centred on structured face-to-face interviews undertaken from July to September 2015.

# DESIGN, METHODOLOGY AND APPROACH

In an attempt to profile the general aviation sector in the Sunshine Coast region, it was necessary, in the first instance, to properly define the sector to be studied and its parameters.

The wider geographic context of the aviation cluster on the Sunshine Coast is worthy of note in this case.

The state capital, Brisbane, and its international airport is only 110 km to the south (and is and will remain) the main aviation hub for greater south east Queensland, particularly for international and domestic travel, for heavy maintenance and for air freight logistics.

The Sunshine Coast region is a major tourist destination in Australia which underpins the strong passenger growth at Marcoola – currently in excess of 80,000 per month. (Sunshine Coast Council August 2015). Despite this market identity and strong 'destination' growth, the close proximity of Brisbane airport makes attempts to increase the Marcoola facility for passenger hub, freight or heavy maintenance very challenging despite strong marketing efforts from local airport management. While infrastructure expansion plans are under development, the current main runway cannot accommodate wide-bodied jets which also limits such opportunities at this time.

The Sunshine Coast Airport has regular direct flights to Sydney and Melbourne and seasonal flights from New Zealand, all based largely on the tourist market.

While the close proximity of Brisbane facilities provide strong competition for many of the aviation services opportunities for the Sunshine Coast, that close proximity is at the same time beneficial to some other aviation-related activities here. These include training, private aviation and, to a lesser extent, certain maintenance, engineering and consultancies. Airspace in Brisbane is largely reserved for major commercial aviation, and airport facilities are crowded and expensive. Excellent flying conditions on the Sunshine Coast and the ability to use the periphery of Brisbane's controlled airspace offers excellent training opportunities.

Further, for training and for private aviation, the Sunshine Coast can draw customers from the larger Brisbane population base which is within easy driving distance.

The two clusters, one at Marcoola near Maroochydore, the other to the south at Caloundra are complementary rather than competitive – with the larger Marcoola precinct focussing on commercial aviation, training and, to some extent maintenance and other aviation-related uses, with the Caloundra facility particularly supporting private aviation and some maintenance and engineering activities.

The formal definition of the sector is fairly well established through industry codes. It is also described in the Regional Economic Development Strategy (REDS) 2013 as: Businesses domiciled within the region with all or a significant part of their business related to the following types of activities – air passenger services, charter services, pilot training (helicopter and fixed wing), maintenance repairs and overhauls (MRO), general aviation

services, recreational aviation and knowledge-based aviation aeronautics and aeronautics technologies and consultancies.

With those sector parameters established, the researchers in this project assembled existing company databases from the regional council and the aviation sector itself. These lists were consolidated and verified, thus identifying 60 locally-based firms who were currently substantially involved in this sector.

This proved a difficult and time-consuming task. A number of the existing databases proved inaccurate as a number of the firms involved, mostly small to medium enterprises (SMEs) had, in the interim, changed name, ownership and/or location and some had ceased trading. It is often difficult to confirm the history of each firm. There were many cases of duplicate recordings of firms – sometimes in error but sometimes resulting from a firm trading under more than one name. Additionally, there were a number of new firms that had been established in the region since the databases were first assembled and whose existence had not been noted. Yet others were registered but were little more than inactive 'shelf' companies. Care needed to be taken through the process to neither overestimate nor understate the size of the sector nor its composition.

At the end of this verification process, it could be confidently claimed that the list represented a complete population of such firms in the region.

Given that defined, relatively small number, a single questionnaire was constructed establishing in qualitative and quantitative terms, the nature of the individual business, their place and relationship in the sector and their identification of what they saw current and emerging issues for their firms and the cluster. Particular enquiry was made regarding physical infrastructure and the use of property assets.

Ethical clearances were secured and practically all of the resident firms in the population were contacted with 36 accepting the invitation for face-to-face interviews. This sample size, 60 per cent of the total population, is very high and considered statistically accurate, given particularly the structural and comprehensive nature of data collection.

In all cases for interview, the owners or Chief Executive Officer of the firm were involved and, once so engaged, were typically very willing to participate, offering quantitative and qualitative observations on the sector, its issues and future.

# **FINDINGS**

Cluster theories developed by Porter (1990,1998), recognised the somewhat counter-intuitive tendency for competing firms to locate in physical proximity to each other. While that trend is obvious across time and is relevant to a range of industry sectors, it is certainly not to suggest that all clustering follows a uniform path or structure (Hefferan 2013). Some, for example, in manufacturing supply lines or in contemporary research or innovation hubs exhibit a close and symbiotic relationship between resident firms. Most clusters also have an organic element – establishing themselves, growing and evolving over time in the face of changing circumstances, demands and opportunities. In some cases firms within a particular sector have come to similar locational decisions, often without a strong business process, and need to be close to complementary or competitive firms. These decisions collectively grow an identity for that particular type of use/activities (Johnson 2014). In other cases, firms simply co-locate, drawn to a particular piece of infrastructure but with little relationship or close collaboration with their neighbours.

Contemporary regional economic/development theory by a range of authors including Porter (1998), the European Commission (2003), Wennerberg and Lindquvist (2010) and Johnston (2014) all recognised the continued value of clustering for firms even given the remarkable changes to overall economic and business environments of recent decades. These benefits typically include:

- the ability to secure identity, prestige and specialisations across the sector and beyond
- the ability to link with some key components of that sector be it a particular resource, piece of infrastructure and/or a major customer
- the ability to share resources and develop supply chains and work more efficiently and potentially with lower transport costs
- to support individual managers and individuals to raise corporate entrepreneurship
- to attract and hold key skilled labour, including the ability to provide greater job security and a wider career path as employees potentially move between firms in the cluster

- to have better potential, either individually or in aggregation to reach economies of scale and/or
- to 'leverage off'/share and increase the momentum of innovation and better link, both as individuals
  and in aggregation with national bodies, governments, industry associations, universities and or
  research institutions.

In something as an extension to cluster theory, recent works by Glaeser (2010, 2011), Enrico (2013) and Delgardo and Ors (2014) now speak of 'agglomeration' of such businesses. They consider that the nature of these aggregating forces may not now be as strictly precinct-based as before – but rather spilling over to other parts of the region and beyond, depending on other local influences on those particular firms. This spillover and expansion tendency has been enhanced by quality information and communication technology (ICT) links.

In other words 'place and clusters' still matter – but now in somewhat different and evolving ways. This would reinforce the regional importance of even smaller scale clusters such as those in regional aviation and aerospace. The argument would run that even though over-specialisation of a particular cluster may hold inherent risks, the practical outcomes would see high profile, innovative activities – such as those related to aviation – spill over into the culture, entrepreneurship and human and social capital networks across the region. While difficult to measure quantitatively, these cultural changes and increased levels of confidence and 'economic enthusiasm' are obvious and self-evident, particularly if sectoral success is recognised, published and celebrated.

The survey in this case asked the respondents a range of contextual questions but thereafter sought details of the individual businesses, their interaction with the cluster as a whole and, notably, details of their usage of and level of satisfaction with property assets available to them within that cluster. The survey identified a number of general characteristics of firms involved in the sector. These were fairly consistent across both the Marcoola and Caloundra nodes.

In the first instance, the sector was dominated by small to medium enterprises (SMEs), with 84 per cent of respondents being sole proprietors, simple partnerships or private companies, with 82 per cent of firms interviewed employing 10 full time equivalent (FTE) staff or fewer. A little under 50 per cent of those interviewed had an annual turnover of less than \$2m. They were highly localised to this region with 86 per cent of interviewees citing the Sunshine Coast as their head office and about 70 per cent advising that they operated from a single premises only.

Despite the business structures here, the firms interviewed were notably stable with some 77 per cent of respondent firms have been in business for over 10 years. However, also reflecting the SME structure, there was limited division of labour within many of the firms with the management and technical skills of the owner(s) often applied throughout the firm's operations. Further, there was little evidence of developed supply chains between resident firms.

Nevertheless, and perhaps surprisingly, this research would indicate that clusters in general aviation and in a regional setting are not as coherent as their physical appearance may indicate.

As noted above, it is important to recognise that while 'aviation' is identified and an industry as a sector in its own right, there exists within it a wide range of quite different sub-sectors. A clear, preliminary delineation relates to whether or not the firms involved need to use or have direct access to aircraft – including passenger, charter and freight companies, pilot training and maintenance firms. However, for substantially more than half of the firms in this survey, access to operational aircraft, taxiways, landing facilities or hard stand were not required. These included various consultant companies, IT and systems companies, non-flying training and professional development and a range of others.

Given the diversity of the subsectors represented, it is important to avoid wide generalisations; however, it should be noted that many of the firms, particularly those involved in training and consultancies, draw most of their client base nationally and internationally and often had quite limited interaction with other firms located within the physical cluster.

It is important to observe that, for all of those firms interviewed, a remarkable 95 per cent of all firms interviewed actually located in one of the two aviation nodes, even though, as noted above, many had no infrastructure nor business process reason so to do.

In qualitative responses, firms have advised that their location decisions (particularly for those that did not require access to landing facilities) related to several key issues. Firstly was the observation that these clusters

had organically grown and, by being located there, firms had the advantage of identity and perceived specialisation. Secondly, though similar office and factory/shed facilities were obviously available in other general and light industry areas, the type of facility typically required (reasonable quality reception and offices, training facilities and workshop and storage areas of various types) was available at an acceptable cost to most firms. Some 74 per cent of respondent firms considered that their premises played a good or excellent role in supporting their business and only 6 per cent rated their accommodation as poor.

Thirdly, and importantly for owner-occupied SMEs, both the Marcoola and Caloundra facilities were convenient from the residences of owners and senior staff – though it was noted that these locations lacked the corporate amenity of more concentrated business centres in Caloundra or Maroochydore.

In summary and despite the range of competing forces identified here, physical clustering was seen by most as important – in a scale 1–5, 75 per cent rated it at 3 or above and fully 1/3 rated it as 5 (i.e. 'absolutely critical').

Despite the obvious advantages of this location for firms involved in the sector, significant issues regarding tenure and property administration were widely recognised by informants to the survey. These were seen as potentially prejudicing the longer-term operations and wealth creation capacity of those firms.

At the Sunshine Coast facilities, as is often the case, leasehold tenure dominates. These leases are often over the land component only with the lessee required to construct and maintain built assets – typically sheds, hangers and office and educational facilities. The leases are normally for 20 to 25 years after which they revert to the freehold owner.

Uses are typically controlled by special usage zonings and by building approvals, but a wide range of aviation and associated uses are permitted.

In most cases, and certainly in the case of the Sunshine Coast, leasehold tenure was originally offered as an incentive to attract companies without their need to meet the up-front capital cost of land purchase. Leasehold tenure was also preferred by the local authority owner as it ensured building development, avoided land banking and provided a level of flexibility to reconfigure or redevelop the land into the future as the airport further developed. A term of 20 to 30 years was seen as a balance between providing security for the tenant to amortise their investment while also allowing that level of flexibility for the precinct overall.

During the establishment stage, that may well have been acceptable for all parties; however, the cluster is now mature with many of those lessee firms being occupants of those buildings for well over 10 years. With a terminating tenure, the lessees' site goodwill inside the cluster cannot be guaranteed. Further, conditions on many of these leases require the improvements to be removed on lease expiry. This clearly impacts on the overall value of those firms as a going concern.

A second issue that emerged related to the resetting of rents on market review. According to the informant firms, a true freehold market value was often very difficult to establish with any level of certainty or predictability. These are highly specialised markets and while comparison could be drawn with light industrial lands elsewhere in the region, the special value that could reasonably be attached to location within the precinct/cluster was difficult to assess given that any sales typically involve leasehold tenure only or may also have involved the sale of the business on site.

Further, in such negotiations, the lessee was in a significantly weaker position than the lessor, given that the former did not have any immediate ability nor wish to move from the cluster.

While no informant was suggesting that this was a case of unconscionable conduct, there was certainly not the level of protection of tenant goodwill that was afforded under legislation to retail shop lease tenants – even though reasonable similarities existed.

A number of informants believe that there is often little regard in negotiations to the ability of tenants to pay. Even though that ability may exist, there would seem to be few options to address any such problems given that the sub-sectors represented are so diverse and would have different business prospects at any point in time. The concept of turnover rents would also appear impossible to apply in such circumstances.

Finally here, there were repeated observations regarding the frustrations that emerged day-to-day because of the other functions that occurred in nearby precincts at the airport. For example, all understood that parking in the vicinity of passenger terminals and related facilities had to be carefully regulated and controlled. In the case of the Marcoola facility, this was applied through the prohibition of kerbside parking throughout the whole

precinct. While there was onsite parking on all sites, this was fairly limited and could not accommodate times of peak usage for tenants such as the hosting of training seminars.

While this may seem relatively minor, it presented serious business disruption and, in the opinion of many of the informants of the survey, reflected the higher priority given to other uses rather than that of general aviation precincts.

# **CONCLUSIONS**

This paper, based on both a literature review and survey of regional aviation precincts on the Sunshine Coast, Queensland observes the relative importance and impact of aviation-related firms and clusters to a wider regional economy. In a physical sense, such firms have very strong tendencies to cluster even though, in many cases, the individual firms do not require access to landing facilities or to aircraft operations.

It further notes that while the sector has an undoubted aviation theme, it is in fact quite diverse with firms involved in activities ranging from aircraft operations and charter, maintenance and engineering, training, consultancies and a range others. It is therefore important to consider the individual characteristics of each sub-sector in any analysis. Property considerations are important. Given the strong, observed tendency to tightly cluster, and given that leasehold tenure dominates, the dynamic between individual firms as tenants and the airport owner is very important to the sustainability to the firms and the cluster as a whole. Tenure and property management arrangements on the Sunshine Coast are understood to be fairly typical of those at airports at aviation clusters in many parts of regional Australia. This survey would indicate that there are significant issues now emerging regarding the length of tenure available and therefore the value of the assets to resident firms. Further, given that these are specialist markets, the manner in which rent may be determined is a matter of ongoing concern and conjecture.

### REFERENCES

Australian Airports Association (2012) Australia's Regional Airports: Facts, Myths and Challenges – Published paper by The Australian Airports Association (AAA), Australian Capital Territory

Boja S.C. (2001) Clusters Models, Factors and Characteristics – Journal Article International Journal of Economic Practice and Theories Volume 1 No 1

Camagni R, Capello R. and Caragliua (2014) The Rise of Second Ranked Cities: What is the Role of Agglomeration Economics? – Journal Article European Planning Studies, 23:6, pp1069-1089

Delgado M., Porter M. and Stern S. (2014) Clusters, Convergence and Economic Performance – Journal Article Research Policy 43 (2014) pp 1785-1799

Deloitte Access Economics (2012) Connecting Australia: The Economic and Social Contributions of Australian Airports – Report prepared for Australian Airports Association Deloitte Access Economics Pty Ltd

Enright M. and Roberts B. (2001) Regional Clustering in Australia – Journal Article Australian Journal Management Volume 26 Special Issue. Australian Graduate School of Management, Sydney.

Glaeser E. (2011) Triumph of the City – Penguin, New York

Glaeser E. (Editor) (2010) Agglomeration Economics – Published paper National Bureau of Economic Research, University of Chicago

Hefferan M. (2013) Real Property in Australia - Property Institute and Mackenzie Green Research and Publishing

Jackson J. Rep (2006) Clusters in Regional Tourism: An Australian Coast Study – Journal Article Annals of Tourism Research Volume 33 No 4 pp 1018-1035

Johnson R. (2014) Clusters: A Review of their Basis and Development in Australia – Journal Article published online Innovation: Management, Policy and Practice

Kasarda J. and Lindsay G. Aerotropolis (2011) The Way We'll Live Next – Farrar, Straus & Girova Books, New York

Moretti E. The New Geography of Jobs – Mariner Books

Porter M. E. (1990) The Competitive Advantage of Nations - New York, The Free Press

Porter M. E. (1998) On Competition – Boston HBS Press

Porter M.E. (2003) The Economic Performance of Regions – Journal Article Regional Studies, 37, 549-578

Porter M. E. (2001) The Competitive Advantage of Nations – Published Article, Harvard Business Review March/April 1990

Porter M. E. (2000) Location Competition and Economic Development: Local Clusters in the Global Economy – Journal Article Economic Development Quarterly Volume 14 No 1 pp 15-34

Queensland Government (2013) Economic Direction Statement Queensland Airports (2013-2023) Department of State Development, Infrastructure and Planning, Brisbane

Roberts B. and Enright M. (2006) Industry Clusters in Australia: Recent Trends and Prospects – Journal Article published online European Planning Studies

Romanellie and K.H. Essinao (2005) Regional Industrial Identification: Cluster Configurations and Economic Development – Journal Article Organisational Science Volume 14 No 4

Steinlec and schieli (2001) Where do Industries Cluster?... A proposal on how to assess an industry's propensity to concentrate in a particular region or nation – Journal Article Research Policy 31 (2002 pp 849-858)

Sunshine Coast Regional Council (2015) 'Record Month for Sunshine Coast Airport' – Media release published online – 26 August 2015

Sunshine Coast Regional Council (2013) Regional Economics Development Strategy (REDS) – Nambour

Wennbergk and Lindqvist (2010) The Effects of Clusters on the Survival and Performance of New Firms – Small Business Economics

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