

# 4.0

## Airport Forecasts



Airport forecasting is used in master planning to guide future development of the Airport.



## 4.1 INTRODUCTION

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Airport forecasting ensures development is appropriate for passengers, ground transport and aircraft and is staged for the volume of air traffic movements anticipated over time. Forecasting takes account of historical trends in growth, future developments anticipated in aviation and external factors that contribute to growth in aviation.

Gold Coast Airport has experienced significant historical growth, driven by low-cost carriers and infrastructure investment. This investment focused on increasing capacity to meet demand, such as the 2007 runway extension and terminal development, which have sustained direct long-haul international flights.

From strong success in the low-cost and international arena, Gold Coast Airport is developing and maturing as a gateway that enables and facilitates inbound visitation to the south east Queensland and northern New South Wales regions, outbound travel for the local community, general aviation and freight activities.

## 4.2 METHODOLOGY

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Forecasting for the Master Plan has considered a range of macro and micro factors:

- » The strength of current and potential future markets
- » The broader aviation environment, trends and predicted aircraft fleet developments
- » The local and international drivers of demand in terms of economics, population growth and propensity to travel
- » The Airport's infrastructure capacity and capability to expand.

Following a review of the factors contributing to the Airport's future passenger and aircraft movements, a mixed methodology for forecasting was adopted covering the various components of air traffic at Gold Coast Airport.

Based on the available industry information, the following assumptions have been made to forecast future airport activity:

- » An average annual rate of growth over the period of five per cent in regular public transport passenger movements
- » Aircraft movements grow at a rate slightly below passenger growth, reflecting increasing use of larger gauge aircraft
- » No anticipated growth in non-RPT aircraft movements due to a combination of general aviation industry factors and the land bank available for non-RPT aviation development at Gold Coast Airport.

The assumptions adopted by GCAPL reflect the confidence and potential in the region to continue to:

- » Attract new residents and increasing volumes of visitors from its key domestic and international markets
- » Invest commercial and residential development, infrastructure and public transport in the region.



### 4.3 HISTORICAL OVERVIEW AND INDUSTRY OUTLOOK

#### 4.3.1 Passenger Movement Historical Overview

Australian passenger movements have grown at an annual rate of just under four per cent in the past ten years, from 104 million movements to 147 million movements in June 2015 as provided by the Bureau of Infrastructure, Transport and Regional Economics (BITRE). By comparison Gold Coast Airport passenger movements grew at just under six per cent from 3.5 million movements to 5.9 million movements. For the calendar year of 2016, Gold Coast Airport's passenger movements broke the six million passenger point for the first time.

The 2011 Master Plan forecast that six million passengers would pass through Gold Coast Airport in the financial year 2011/12. This volume was not achieved until 2016. This was due to an unforeseen decrease in passenger numbers in 2011, which occurred for the first time since 2001 (Figure 4.1). Passenger growth corrected in 2012. The 2011 Master Plan forecast 7.8 million passengers for the financial year of 2017/18 and 16.3 million passenger movements by 2031/32.

The 2017 Master Plan twenty-year forecast is not dissimilar, despite the time frame having moved forward five years. Achievement of 16.6 million annual passenger movements is forecast for the end of 2037, indicating that the profile of the forecast is more conservative than the previous Master Plans.

Gold Coast Airport passenger movements in 2014/15 accounted for four per cent of Australian passenger movements. That market share is almost double the 2.3 per cent market share recorded 15 years ago in 2000/01, demonstrating the accelerated rate of growth experienced by Gold Coast Airport compared to the national average. Historical Gold Coast Airport passenger movements have been shown against passenger movements for Australia in Figure 4.1. It shows that Gold Coast Airport has largely followed passenger growth for Australia, but since 2005/06 has performed better than general passenger growth trends.

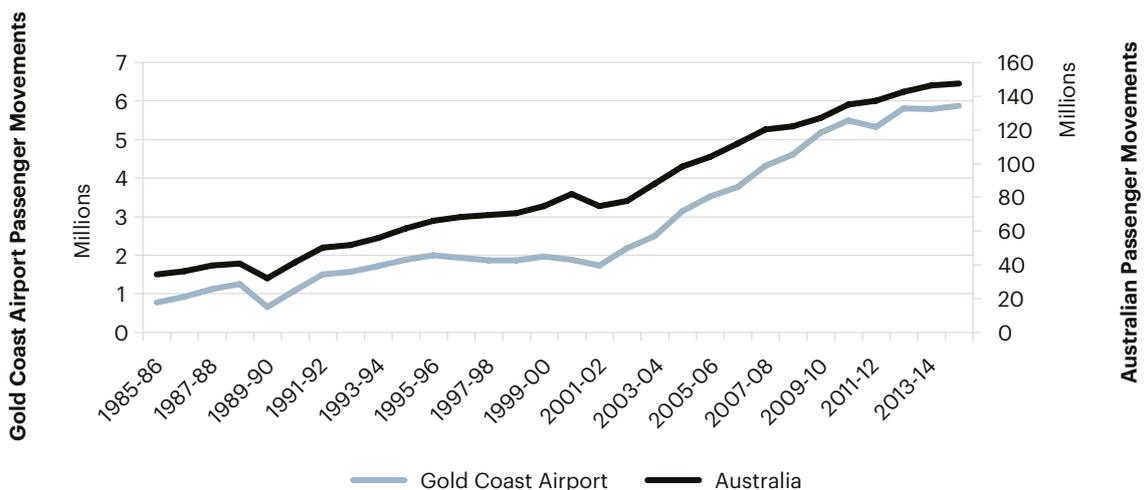
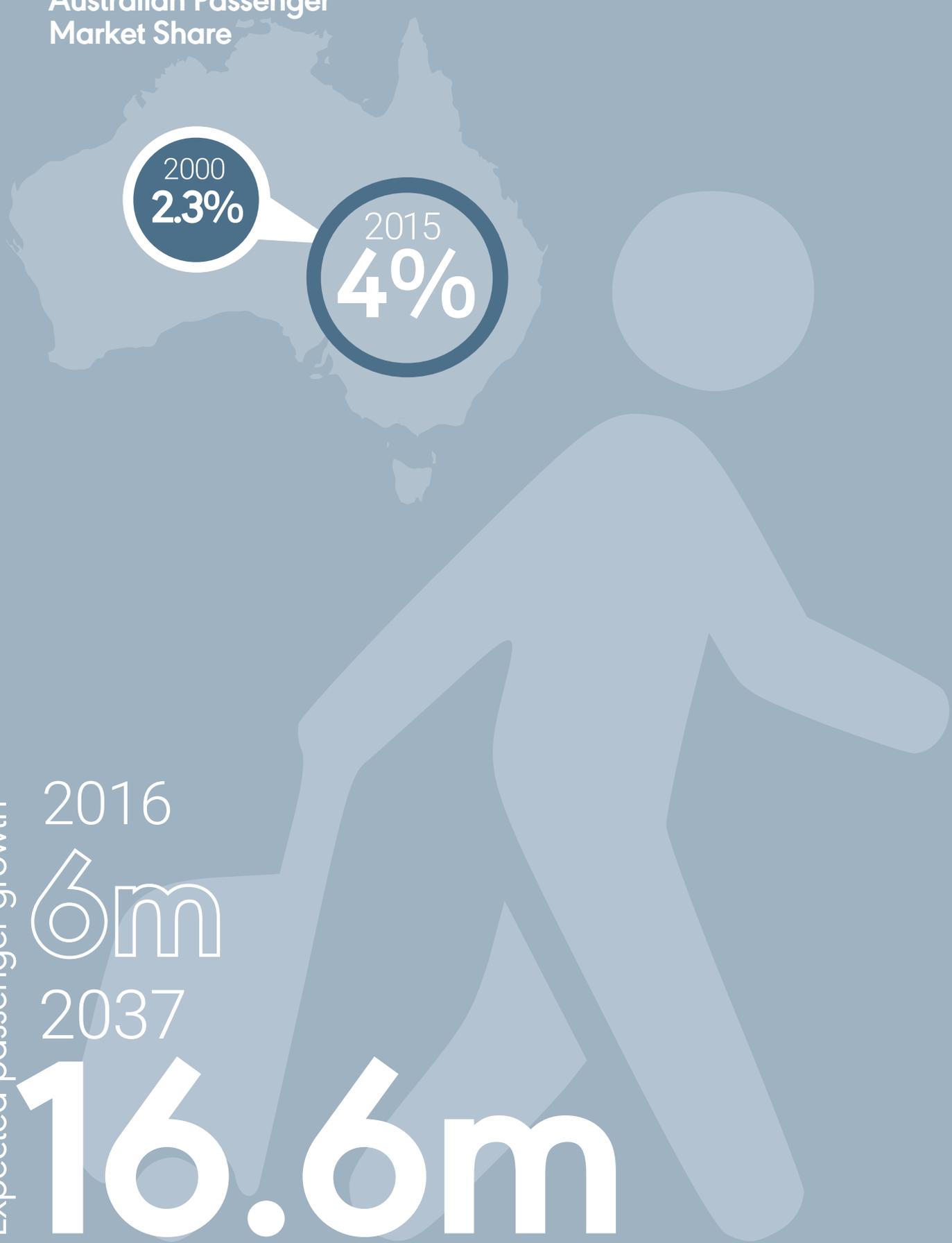


Figure 4.1 Historical Passenger Movements

# Australian Passenger Market Share



2000  
**2.3%**

2015  
**4%**

Expected passenger growth  
2016  
**6m**  
2037  
**16.6m**

### 4.3.2 Aircraft Movements Historical Overview

#### Australian Domestic Market

The majority of passenger traffic is recorded in the domestic market (84 per cent of RPT aircraft movements in 2014/15). Domestic city destinations comprise Adelaide, Canberra, Cairns, Melbourne, Newcastle, Perth and Sydney. Services to Mackay and Mount Isa/Darwin ceased since the publication of the 2011 Master Plan. Since July 2015, additional services have been added to Melbourne Avalon and Rockhampton, which continues to Townsville.

Seventy per cent of flights departing Gold Coast Airport are movements on trunk routes to Sydney and Melbourne, which are both recorded in the top ten domestic routes for passenger movements in Australia.

In the ten-year period from 2005/06, the aviation environment has continued to evolve, reflecting phases of:

- » Stabilisation, following the collapse of Ansett
- » Growth, through Jetstar and then Tigerair commencing operations
- » Industry change, with airlines evolving their business models and ownership groups
- » Economic development, with the resources industry construction phase driving a short-term shift in capacity away from traditional markets such as leisure. This had reversed by the end of the period.

#### Short-Haul International Market

Gold Coast Airport's first international services were on the trans-Tasman, prior to the runway extension enabling direct international long-haul services. Services today continue to the long-term markets of Auckland and Christchurch, with the relatively recent addition of direct services to Queenstown and Wellington.

Key airline partners in the south west Pacific include Jetstar, Virgin Australia and Air New Zealand. Gold Coast Airport welcomed AirAsia X as a new partner serving the New Zealand market in 2016.

#### Medium and Long-Haul International Market

Gold Coast Airport now serves five medium and long-haul destinations across South East Asia and north Asia. These destinations have been added in the past ten years, since the investment in the runway extension.

The inaugural service for AirAsia X as an airline, on the Kuala Lumpur–Gold Coast route, was in November 2007. In 2016, the long-term partnership with AirAsia X evolved. AirAsia X now serves the trans-Tasman market to Auckland, with the aircraft arriving daily from Kuala Lumpur, departing for Auckland, and returning to Kuala Lumpur later in the day via Gold Coast Airport.

Gold Coast Airport also maintains Jetstar and Scoot as long-haul partners. Jetstar operates flights from Japan (initially Osaka and now Tokyo). Scoot serves the direct Singapore route.

Hong Kong and Chinese charters have taken place over recent years, culminating in the recent announcement that a seasonal service from Hong Kong with Hong Kong Airlines will convert to a year-round scheduled service in 2016. This service triangulates with Cairns on the departing flight.

#### Destinations and Frequencies

In 2016, on average 56 commercial flights a day depart Gold Coast Airport, providing over 3.66 million one-way seats for sale in the year. An analysis of city pair frequency and carriers is presented in Table 4-1, with comments on recent route announcements.



Table 4-1 Destinations and Frequency of Services

City Pair	Commencement Date If Recent	Average Number of Departures	Carriers Operating
Sydney		25 / day	Qantas, Jetstar, Virgin Australia, Tigerair
Melbourne	Qantas, October 2015	15 / day	Qantas, Jetstar, Virgin Australia, Tigerair
Adelaide		2 / day	Jetstar, Virgin Australia
Canberra		1 / day	Virgin Australia
Cairns		1 – 2 / day	Jetstar
Newcastle		1 – 2 / day	Jetstar
Perth		1 / day	Jetstar
Rockhampton/ Townsville	September 2015	2 – 3 / week	Jetgo
Melbourne Avalon	October 2015	1 / day	Jetstar
Auckland	AirAsia X, March 2016	3 / day	Jetstar, Virgin Australia, Air New Zealand, AirAsia X
Christchurch		1 / day	Jetstar
Wellington	December 2014	3 / week	Jetstar
Queenstown	December 2014	3 – 4 / week	Jetstar
Tokyo		5 – 6 / week	Jetstar
Singapore		6 – 7 / week	Scoot
Kuala Lumpur		6 – 7 / week	AirAsia X
Hong Kong	Seasonal service, January 2016	3 / week scheduled by July 2016	Hong Kong Airlines

### 4.3.3 Industry Outlook

Gold Coast Airport anticipates that the aviation industry is likely to maintain a focus on efficiency and maximising the use of aircraft assets, while continuing to up-gauge the size of the aircraft operating on key routes.

The domestic market will continue to evolve as the carriers compete for customer demand in tight market conditions. Drivers such as relative business and consumer confidence, the cost of fuel, and airline profitability (driving investment in fleet) will impact the overall seat capacity market and decisions by carriers on where to deploy their fleet.

For GCAPL's purpose, the focus on efficiency and maximising yield means continuing high-load factors on aircraft, frequent movements on trunk routes to Sydney and Melbourne, and continued activity in the three core markets:

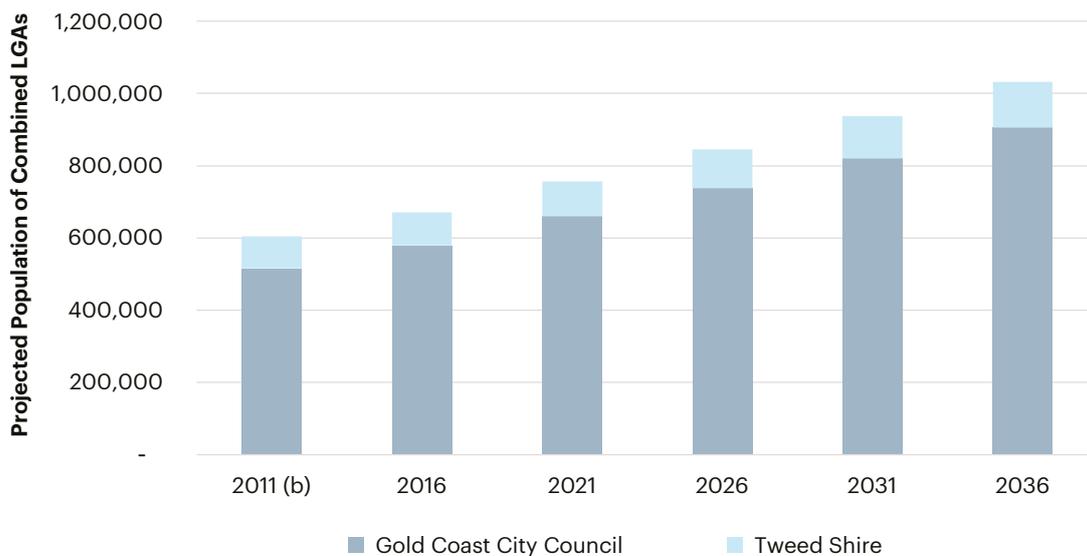
- » Australian domestic services
- » Short-haul international services to the south west Pacific region
- » Long-haul international services to South East Asia and north Asia.

GCAPL expects its business to continue to mature and reflect the industry trends demonstrated through recent changes such as:

- » High competition between four carriers operating to Sydney and Melbourne, offering a range of service levels and timings to meet the demands of consumers, whether locals or visitors, travelling for leisure or business
- » New services offered to Rockhampton and on to Townsville, demonstrating the level of demand that exists in the regional market that can be successfully operated when matched with a right-sized aircraft
- » New year-round services offered to previously seasonal markets such as Hong Kong, which capitalise on the strength of demand for the Gold Coast destination in the greater China market
- » New services offered to short-haul destinations, such as Melbourne Avalon, Wellington, Queenstown, which can sustain year-round services with strong promotion and support.

### 4.3.4 Regional Population Growth

Within the period of this Master Plan, the population of City of Gold Coast and Tweed Shire Council in the immediate catchment of Gold Coast Airport will be over one million people. In 2016 this area was estimated to be home to 670,000 people. An additional 360,000 people will reside in the region within the twenty-year period of this Master Plan, representing an average annual growth rate of 2.3 per cent (Figure 4.2).



Source: Forecast ID, for Tweed Shire, Queensland Statistician's Office, The City of Gold Coast

Figure 4.2 Gold Coast City Council and Tweed Shire Council Population Projection 2011-2036



Supporting a regional  
**population**  
**GROWTH**  
exceeding  
**ONE**  
million  
by **2037**

International passengers  
forecast to grow to  
3 million by 2037.



## 4.4 AIRPORT FORECASTS

GCAPL has prepared a forecast based on an annual average passenger growth rate of five per cent for the period of the Master Plan, derived from historical growth of Gold Coast Airport and the national average.

Beyond the direct impacts provided by the aviation industry, growth in the region will be driven by socio-economic factors, demand for travel and attractiveness of the region, relative to other competing destinations. GCAPL recognises it is crucial to work closely with tourism, business and government partners to market the destination and lead the promotion of the destination to airline partners.

### 4.4.1 Passenger Movements

Over the past ten years, annual passenger growth at Gold Coast Airport has been six per cent, compared to a national average of four per cent. The adopted five per cent future annual growth rate is realistic as an average over the twenty-year planning horizon of the Master Plan for Gold Coast Airport. This allows for expected fluctuations to annual growth rates, dependent on market demand conditions and aircraft availability.

Based on this assumption, passenger movements are forecast to grow to 8.2 million in 2022 and 16.6 million in 2037, at an average annual growth rate of five per cent. Of this, 13.6 million domestic passengers will travel through Gold Coast Airport, accompanied by 1.36 million short-haul international passengers and 1.7 million long-haul international passengers. The historical and forecast passenger movements from 2003 to 2037 are shown in Figure 4.3.

It is anticipated that the domestic and international markets will grow at different rates reflecting the comparative maturity of the two market sectors. Currently 85 per cent of passenger traffic is domestic, this is forecast to decline to 82 per cent by 2037. Greater growth potential has been identified in long-haul markets to South East Asia and north Asia.

Domestic and short-haul international passengers are expected to grow at a rate of 4.7 per cent compared to 6.2 per cent for long-haul international passengers.

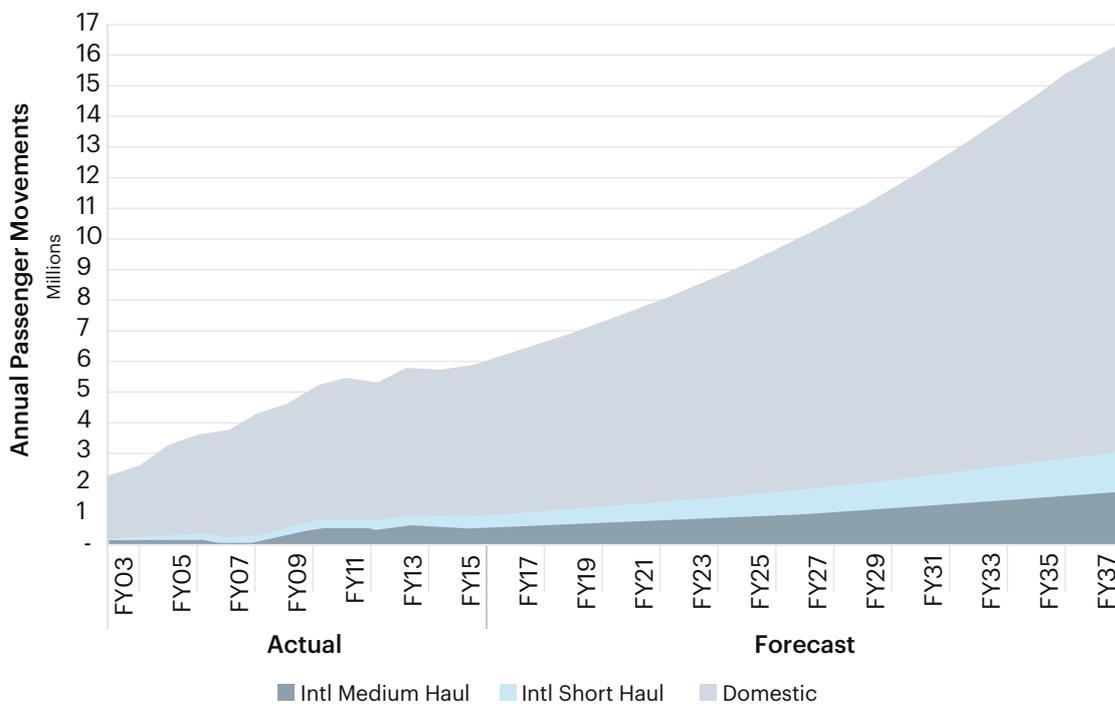


Figure 4.3 Passenger Movement Forecast to June 2037

4.4.2 Passenger Aircraft Movements

**Annual**

Gold Coast Airport forecasts 103,000 annual RPT aircraft movements by 2037, reflecting an average annual growth rate of 4.7 per cent over twenty years. The majority of movements will remain domestic with 86,000 movements resulting from a forecast growth rate of 4.3 per cent. Internationally, 16,500 annual aircraft movements are forecast for 2037 (Figure 4.4). International will account for 16 per cent of aircraft movements with a growth rate of 5.3 per cent. As that market becomes more mature, the rate of growth will slow compared to historical trends.

RPT aircraft movements will continue to be a mix of Code C and Code E aircraft. Across the international markets Code E aircraft will continue to serve the medium-haul Asian market, predominantly Boeing 787 and Airbus A330 aircraft with 300 – 350 seats.

The short-haul domestic and South Pacific international markets will be mainly served by Code C aircraft with 170 – 220 seats, comprising Airbus A320, Airbus A321 and Boeing 737 aircraft. Over time, particularly on high demand routes to Sydney, Melbourne and Auckland, the airlines will increase aircraft gauge by introducing Code E aircraft in response to growing demand. The most likely Code E aircraft type will be the Boeing 787 with 300 seats on the Sydney to Gold Coast and Melbourne to Gold Coast routes in the busy hours.

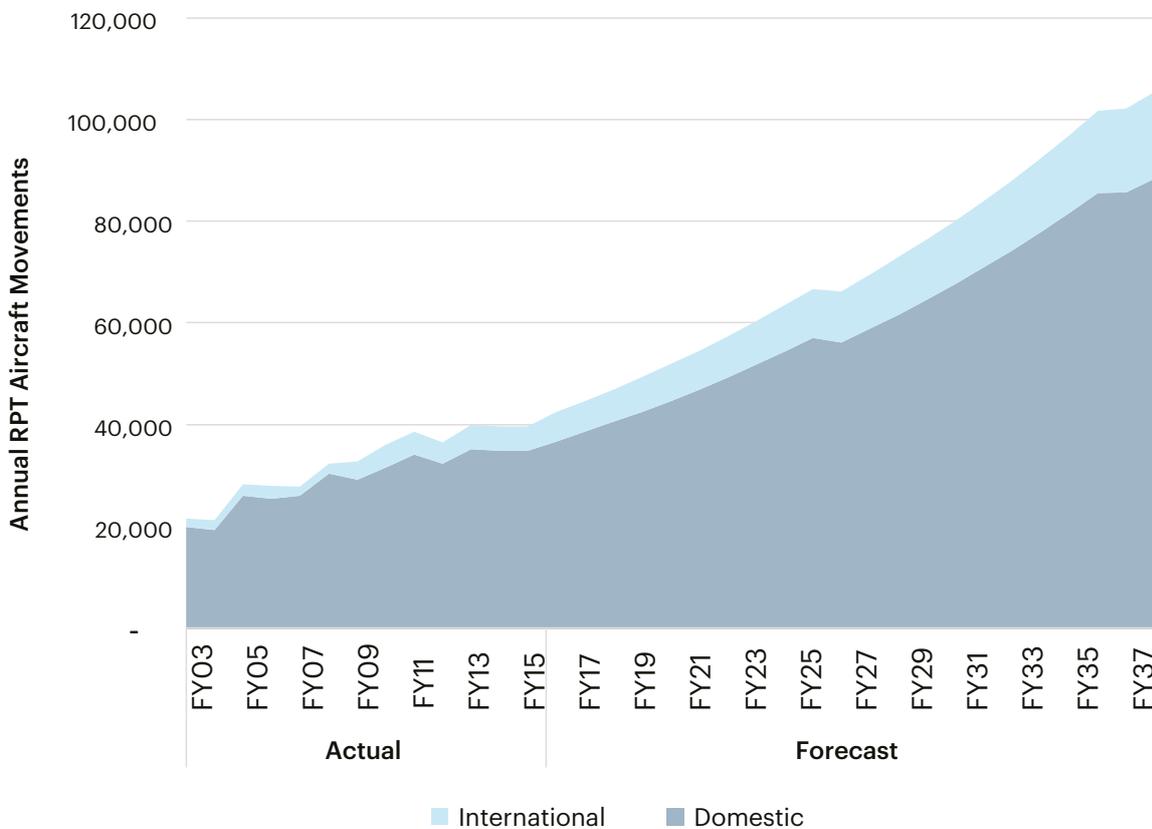


Figure 4.4 RPT Aircraft Movement Forecast to June 2037

2037 **103,000**  
aircraft movements

**CODE**

**E**

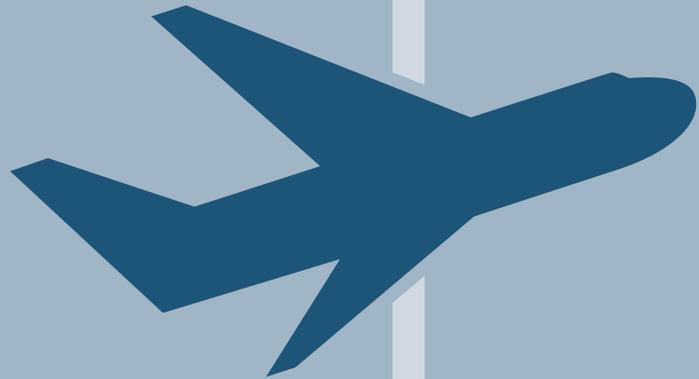
**Boeing 787**  
**Airbus A330**



**CODE**

**C**

**Airbus A320**  
**Airbus A321**  
**Boeing 737**



**Busy Hour**

In addition to annual aircraft movements a forecast was prepared for busy hour aircraft movements. This illustrates required stand demand on the busiest day, which is typically a Saturday at Gold Coast Airport.

Forecast results for busy hour are that the combined domestic and international apron parking stand demand will be 17 stands by 2022 and 28 stands by 2037 (Figure 4.5). Currently 33 per cent of stands are for wide-body aircraft. By 2037 that ratio will have increased to 39 per cent or nearly two in five stands.

**4.4.3 General Aviation**

The General Aviation industry has not experienced the same rate of growth as the commercial RPT industry. At Gold Coast Airport resident General Aviation is primarily comprised of helicopters, flying schools and charter jet services. By comparison relatively little itinerant General Aviation flying is recorded. The helicopters and flying schools represent high frequency usage of the airfield with multiple daily movements and have healthy businesses in a highly competitive environment.

The forecast is for flat growth in General Aviation over the Master Plan period.

**4.4.4 Freight**

Gold Coast Airport is served by two freight forwarders on-airport, for both domestic and international markets.

The Bureau of Infrastructure, Transport and Regional Economics freight statistics inform that Gold Coast Airport’s international freight amounted to 3,764 tonnes in 2015, or 0.4 per cent of international freight movements in Australia.

By the year 2037 it is expected that freight at the Airport will continue to grow in line with the forecast aircraft movements.

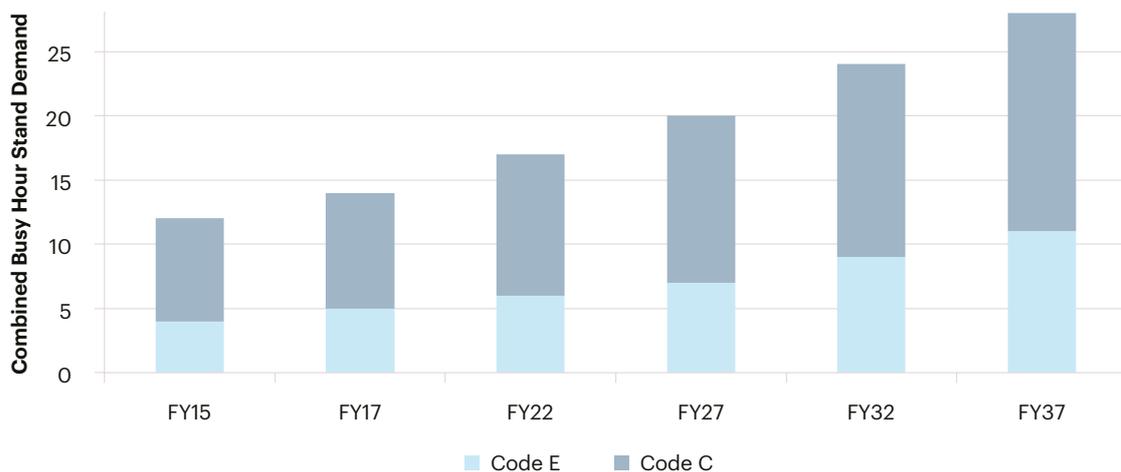


Figure 4.5 Busy Hour Demand

