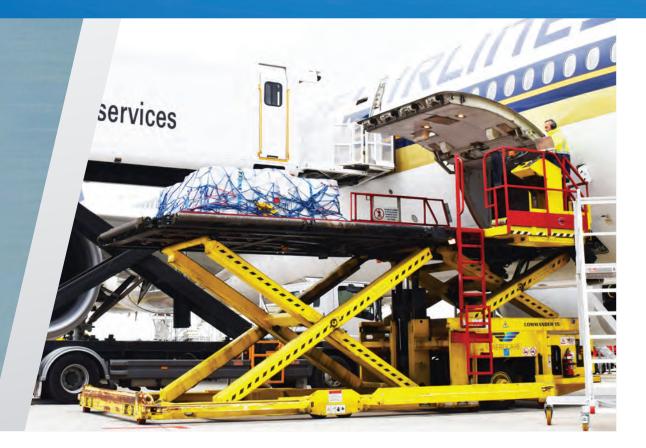
CHAPTER 6 FREIGHT OPERATIONS

IB

CATHAY PACIFIC CARGO

"Working in partnership with land use and planning, transport can play an integral part in supporting the emergence of industrial areas and economic hubs, such as Canberra's international airport and its future air freight potential for the Capital region and beyond."

ACT GOVERNMENT - MOVING CANBERRA 2019-45



6 Freight Operations

Airfreight arriving and departing Canberra Airport has a long history over many decades. This movement of freight by air has been, and continues to be, carried by a mix of aircraft over a 24-hour cycle. Freight is carried by defence aircraft, domestic passenger aircraft and dedicated domestic aircraft and from time to time international freight aircraft. The opportunity arising from international passenger services at Canberra Airport will soon systematically broaden the airfreight capability for government and business operations within the region and provide a new driver for growth of freight hub operations through Canberra Airport. Over 95 percent of the international airfreight task into and out of Australia is carried by passenger aircraft.

Over the 21 years since privatisation, Canberra Airport has seen an ongoing range of overnight airfreight operations catering to the existing needs of Canberra and the region, as well as a range of other overnight aircraft movements including defence, adhoc VIP and domestic passenger aircraft. This is expected to continue and diversify with the opportunity of overnight international passenger services arriving and departing Canberra Airport. Singapore Airlines operates a daily passenger service Canberra non-stop to Singapore departing Canberra between 11pm and midnight each evening. Qatar Airways also operate a daily passenger service departing Canberra to Doha, via Sydney, between 1pm and 2pm each afternoon. Each aircraft can carry up to twenty-five tonne of freight in addition to passengers.

Whilst Sydney is a key airfreight origin and destination city in Australia's overnight express airfreight market, ongoing curfew restrictions at Sydney Airport are expected to deliver substantial new opportunities for airfreight at Canberra Airport over the next ten years at least, until Western Sydney Airport is commissioned and is operating. Canberra Airport is well positioned to accept and distribute airfreight within Southern NSW, especially South East NSW. This critical role was emphasised in the 2012 Australian and NSW Government Joint Study on Aviation Capacity for the Sydney Region [Joint Study].

ACT Chief Minister Andrew Barr noted in his submission to the Senate Standing Committee on Rural and Regional Affairs and Transport, February 2018, "Freight networks are intricate and are presently clustered around Australia's major international gateways. However, as congestion at Sydney and Melbourne Airports increases, Canberra is well-positioned to absorb additional capacity and serve the agricultural and wholesale markets in the surrounding region."

The ACT Government's 2018 Planning Strategy states "Unlike many Australian airports, Canberra Airport is curfew-free, providing significant capacity to facilitate growth in both international and domestic freight and passenger movements." This 2020 Master Plan again outlines the opportunity for the commencement of an overnight express freight hub at Canberra Airport in response to the needs of the overnight express freight industry and its development over the 20-year planning period of this 2020 Master Plan. It also foreshadows the commencement of dedicated international airfreight services to Canberra Airport by freight only aircraft.

The development of a vibrant and larger airfreight operation at Canberra Airport is expected to deliver significant economic benefits for the region, including jobs, and open the region up to a broad range of new industry sectors benefiting from being located adjacent to Australia key freight hub serviced by both freighters and passenger aircraft. *"Mr Barr and Mr Barilaro have both been strong supporters of the Airport's potential as a regional airfreight hub, particularly for time-sensitive fresh meats, fruits and dairy products."* (Joint media release ACT Chief Minister and NSW deputy Premier, 12 November 2018)

The start-up of Pak Fresh at Canberra Airport in June 2018 targeted initially domestic freight for Virgin Australia. The facility has been upgraded to international export standards commencing the export of goods and produce in July 2019.

This Chapter both informs and addresses feedback from the community over the past twenty years with respect to the impact on some of the community of additional overnight aircraft activity at Canberra Airport, including aircraft noise and the negligible road traffic impact.

By articulating the noise impact of overnight aircraft operations this 2020 and previous Master Plans makes the community aware of the impact and in so doing, alerts developers and residents who live or build new houses in such locations, to be responsible for ameliorating that noise through insulation.

Since May 1999 Canberra Airport management has openly disclosed to the community future aircraft noise impacts including the long-term unrestricted operation of the Airport. The community around Canberra Airport is aware of and anticipates a long-term future where the Airport does not operate with the constraint of a curfew. It is not helpful or realistic for members of the public to anticipate a curfew in years to come, or to expect it will solve their aircraft noise problem. As some communities near curfewed airports in Australia will tell you, short sighted planning results in a future of discontent. The mitigation of aircraft noise intrusion into our communities is best managed before this stage of discontent is ever reached. Early best practice planning by establishing residential suburbs away from inappropriate levels of aircraft noise is in the interest of both the local community and the productivity of the nation. Fortunately, Airport management continues to take action to protect this opportunity at Canberra Airport. For more information on aircraft noise management at Canberra Airport refer to Chapter 12.

This Chapter of the Draft Master Plan provides an overview of Canberra Airport's ongoing strategies and actions to integrate with the land use planning and economic development of the region.

6.1 EXISTING NATIONAL OVERNIGHT EXPRESS FREIGHT NETWORK

The current overnight airfreight system comprises a complex network of routes designed around meeting curfew requirements at Sydney Airport and to a lesser extent Adelaide Airport. The current trunk overnight airfreight network is operated by three major aircraft operators, Qantas, Virgin Australia and Toll.

Problems with the current network-based approach include:

- Sydney is Australia's largest origin and destination for express overnight freight, yet Sydney Airport is curfew constrained. Larger freight aircraft such as B737 are unable to operate during curfew hours, severely hampering the delivery of overnight freight into Sydney;
- The absence of daylight saving in Queensland means that for six months of the year the Sydney curfew severely impacts on cut-off times for freight destined for Sydney from Brisbane and elsewhere in Queensland;
- The network-based system requires more aircraft, including less efficient, smaller and older aircraft to operate more flights, increasing overall fuel burn and emissions, and raising the cost of airfreight; and
- The network-based system means a delay to one key flight can impact the entire system overnight, with significant cost implications to freight operators, who in such cases are often forced to charter alternative aircraft at short notice to meet contractual obligations.

It is noted express overnight freight is only carried by air where it is not able to be carried by passenger aircraft or road. Despite the current extensive overnight airfreight network, large numbers of trucks operate to and from capital cities, including Canberra and major regional centres across the Eastern Seaboard 24 hours a day and even to Perth over weekends.

6.2 **OPPORTUNITIES FOR FREIGHT GROWTH AT CANBERRA AIRPORT**

Sydney Airport, Australia's largest airport and primary freight origin and destination, is constrained by an overnight curfew.

However, with an excellent road connection to Sydney and as NSW's only 24-hour curfew-free major Airport (Gold Coast, Newcastle and Sydney are curfewed), Canberra Airport is well placed to operate as an alternate freight airport in addition to the region's soon to be realised opportunities to harness just- in-time domestic and international

capability over a 24-hour cycle. The Western Sydney Airport (mooted to open in 2026) is currently planned as a curfew-free airport and as such could compete with Canberra in the delivery of domestic and international freight over a 24-hour cycle into Sydney.

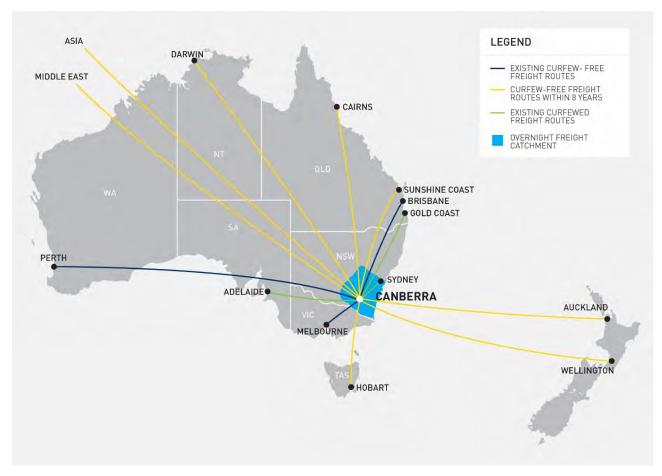


Figure 6.1 - Current and future airfreight route opportunities by airlines and air freighters (indicative only)

Based on the experience of highly successful operations at airports in secondary cities in North America and Europe which in some cases see large numbers of nightly freight flights this 2020 Master Plan envisages international, trans-Tasman and domestic freight flights congregating at Canberra, exchanging freight, and departing again to their destination. This freight will be additional to domestic and international airline movements of freight. Freight destined for Sydney [and in some cases Melbourne and southern NSW] would be transferred to trucks enabling express delivery before the commencement of the business day.

Airfreight is becoming more important with the growth in trade, changes in manufacturing processes with time compression of the supply chain, widespread adoption of just-in-time working practices, web-based retail purchase trends and an increasing shift to high value, low weight goods as well as services.

A network of curfew-free airports, including Canberra Airport, on north-south and eastwest axes, is important to allow for the ongoing successful operation of overnight airfreight and other overnight aircraft operations, including domestic and international passenger airlines. The Australian, ACT and NSW Governments have also recognised the importance of appropriate land use planning, [ie, no noise-sensitive developments under flight paths], community consultation, and the optimal location of flight paths to ensure these airports remain curfew-free (refer Chapter 4). Canberra Airport welcomes this commitment to the maintenance of an effective overnight national aviation capability.

6.2.1 THE OVERNIGHT FREIGHT HUB CONCEPT

Only three hours by dual carriageway from Sydney, Canberra Airport offers an attractive and cost-efficient alternative; a curfew-free and slot-free airport. It offers existing available apron and warehousing space as well as land area available for freight expansion. It is centrally located in south-eastern Australia at the meeting point of the east-west and north-south network of curfew-free airports to provide a hub for both road and airfreight connections to other major centres.



Figure 6.2 - Australian curfew-free major airports

The development of Canberra Airport as a freight hub in addition to freight carried by domestic and international airlines will free up valuable landing slots and land at Sydney Airport for the expansion of commercial passenger services.

Canberra Airport entered the international age in 2016 with services initially to Singapore and Wellington New Zealand. Singapore Airlines no longer fly Canberra – Wellington return. A number of these future services will be overnight to facilitate am arrival into international ports similar to Singapore Airlines Canberra – Singapore overnight current flight arriving into Singapore pre-dawn. It is a central component of this 2020 Master Plan [as with the four previously approved Canberra Airport Master Plans] that Canberra Airport remains curfew-free. The curfew-free status of Canberra Airport and the importance of maintaining this status has been previously outlined by the Australian, ACT and NSW Governments as set out in Chapter 4. Investment in infrastructure at Canberra Airport, including for freight, has already been and will continue to be made during the life of this 2020 Master Plan in reliance to these commitments.

Recognising these advantages, Canberra Airport continues to consult with the major domestic overnight airfreight companies and many international passenger airline operators regarding their opportunity to develop and grow a hub for domestic and international overnight airfreight. One of the operators of trans-Tasman overnight freight has advised they are also interested in operating their services to Canberra rather than Sydney, especially if a domestic freight network is established.

Whilst an exact timeframe is uncertain due to the economic downturn in airfreight since the global financial crisis in 2008 and only slow recovery, it is expected such a freight hub may commence within the next eight years leveraging off the base of Pak Fresh, Qantas Freight, Singapore Airlines and Qatar Airways emerging operations that will shape the future.

Consistent with Section 71 of the Airports Act, it is important to recognise this proposal will be driven by the users of the Airport - the airfreight and airline operators. It is these operators who will determine when and how a freight hub at Canberra Airport will escalate current operations. In transparently setting out the concept proposal in this 2020 Master Plan, as in previous Master Plans, so as to explain to Airport users and the community how a freight hub may work, it must be acknowledged this represents Canberra Airport's best assessment of the likely outcomes of a freight hub.

6.2.2 CANBERRA AIRPORT OVERNIGHT FREIGHT HUB - INITIAL STAGES

With the establishment of a freight hub, based on discussions with potential operators, it is expected the initial phase of the freight hub will commence with two to three jet freighter aircraft per night, such as Boeing 737-300, growing to five aircraft within three years of commencement. These aircraft will likely replace current operations of smaller aircraft. International freight operators and airlines will use larger aircraft compared to the Boeing 737-300.

Figure 6.5 depicts the Single Event Noise Contours of a B747-800 operating a freight service from Canberra to an international destination. Noise from this aircraft is generally confined to the area between the Canberra Noise Abatement Area and the Queanbeyan Noise Abatement Area, avoiding residential areas of the ACT and most of Queanbeyan. However, over 620 houses in Jerrabomberra and future houses in South Tralee and South Jerrabomberra are not within the Noise Abatement Areas. Canberra Airport accepts residential development outside the ANEF 20 in NSW, however, it is the responsibility of the land owners to noise attenuate their property as this land is subjected to aircraft noise at any time by the 24-hour, seven-day passenger, freight and defence aircraft flight operations arriving and departing Canberra Airport. The frequency of aircraft movements and the size of the aircraft are forecast to increase indefinitely into the future.

| | Aircra | aft sched | ules | Stage 1 | Stage 2 | Stage 3 |
|----------|-----------|-----------|---------|---------|---------|---------|
| Aircraft | 1 | | | | | |
| PER | 19:00 | CBR | 00:30 | ✓ | ✓ | ✓ |
| CBR | 02:00 | BNE | 03:35 | | | |
| | | | · | | • | · |
| Aircraft | 2 | | | | | |
| BNE | 22:00 | CBR | 00:35 | ✓ | ✓ | ✓ |
| CBR | 02:00 | PER | 04:10 | | | |
| | | | | | · | · |
| Aircraft | 3 | | | | | |
| HBA | 21:45 | MEL | 22:45 | | | |
| MEL | 23:30 | CBR | 00:30 | | ✓ | ✓ |
| CBR | 02:00 | MEL | 03:00 | | | |
| MEL | 03:45 | HBA | 04:45 | | | |
| | | | | _ | | |
| Aircraft | 4 | | | | | |
| ADL | 21:30 | CBR | 00:30 | | ✓ | ✓ |
| CBR | 02:00 | ADL | 04:00 | | | |
| | | | | | | |
| Aircraft | 5 | | | | | |
| AKL | 22:00 | CBR | 23:30 | | | ✓ |
| CBR | 01:15 | AKL | 06:15 | | | |
| | | | | | | |
| Truck co | onnectior | (2x B-do | oubles) | | | |
| Sydney | 21:00 | CBR | 00:30 | ✓ | ✓ | ✓ |
| 0.0.0 | 04 (5 | | 05.15 | | | |

Table 6.1 – Indicative schedule for initial stages of freight hub

CBR

01:45 Sydney

05:15

The initial stages of the domestic overnight freight hub as indicatively outlined in Table 6.1 within ten years could be accommodated at Canberra Airport with little or no additional infrastructure or impact on existing Airport users. The current Fairbairn apron provides substantial aircraft parking capability and is directly fronted by hangar facilities.

Much of the freight in the first stage of a freight hub will simply be exchanged between aircraft or trucks, therefore minimal warehouse or other storage requirements associated with the freight operation will be required. Relevant roads authorities will provide input as required about the increase of freight movements at and around the Airport by way of the Canberra Airport Planning Coordination Forum.

Given the average B-double truck payload is 37 tonnes compared with 14.5 tonnes for a B737-300 freighter aircraft, the number of trucks associated with the first stage of a freight hub is expected to be restricted to between one and three trucks per weeknight to Sydney. Often volume is more critical than payload for both air and road freight; however, the same ratios apply as noted above for freight volume as for payload.

Vehicle access to Fairbairn, including for trucks operating to Sydney [and in some cases Melbourne] as part of the first stage of a freight hub, will be via Scherger Drive and Pialligo Avenue. Vehicle access from the Pialligo Precinct will be via Pialligo or Fairbairn Avenues.

Trucks will then access the Federal Highway [with connection to the Barton Highway where applicable] via the Majura Parkway or Sutton Road, remaining away from residential areas at all times. Trucks transferring freight to and from the region will also use these roads together with the Monaro and Kings Highways. These roads are all designated as heavy vehicle routes and already accommodate large volumes of heavy vehicles on a daily 24-hour basis. All truck services associated with the initial stages of the freight hub are expected to operate at night outside peak periods. Refer to Figure 6.3 for the regional road freight network.

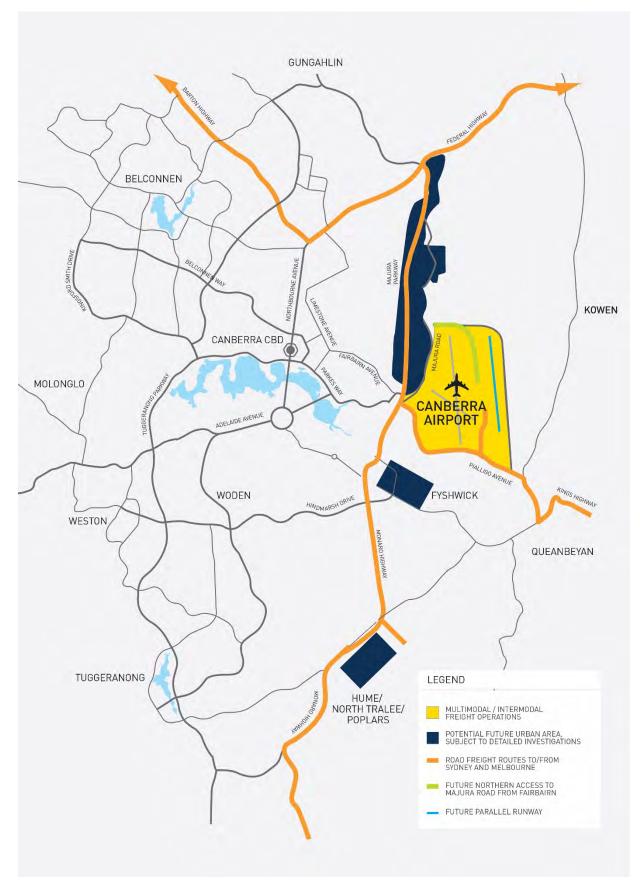


Figure 6.3 - Road freight network to support Canberra Airport airfreight

6.2.3 CANBERRA AIRPORT OVERNIGHT FREIGHT HUB - FUTURE GROWTH

Following the initial establishment of a freight hub at Canberra Airport, express overnight freight operations at the Airport would be expected to grow over the life of this 2020 Master Plan.

The growth of the overnight airfreight hub beyond the initial stages may occur in any or all of the following ways over the next twenty years:

- Addition of direct overnight trans-Tasman to Auckland flights, with possible future additional connection to Christchurch, involving one to two additional jet services per night;
- More direct services to domestic destinations, such as the de-linking of the Tasmania from Melbourne services and Alice Springs/Darwin and North Queensland services. This would be expected to add a further three nightly aircraft operations to the freight hub network, most likely with smaller jet or turboprop freight aircraft;
- Turboprop and piston-engine freighter services to regional NSW/Victorian destinations replacing services that currently operate directly into Sydney and/or Bankstown Airport. Based on the current regional network, operated by one express freight operator from Bankstown, this could involve up to three additional flights per night;
- The commencement of a freight hub by a second major national overnight freight operator. This would likely initially involve approximately three to five aircraft per night; and
- Additional direct international freight and passenger services to Canberra to link in with overnight express freight services. This is described in greater detail at Section 6.3.

Additional flights associated with the growth of the freight hub would be expected to follow a similar schedule to that outlined for the initial stages of the freight hub at Table 6.1.

Table 6.2 provides a summary of estimated growth in overnight airfreight movements along with additional B-double [or equivalent] truck movements, including one additional aviation fuel delivery vehicle. Note these figures are estimates based on number of return flights per weeknight and the 20-year scenario assumes all of the growth scenarios listed have occurred.

Table 6.2 - Projected growth in freight aircraft movements and associated truck movements

| Timeframe | Jet aircraft | Turboprop/piston aircraft | Additional Trucks (incl. aviation fuel) | |
|-----------|--------------|------------------------------|--|--|
| 10 years | 18 | 9 | 7 | |
| 20 years | 32 | 18 | 40 | |

Note: Arrival and departure of an aircraft constitutes two movements

Over the 20-year planning period of this 2020 Master Plan additional freight capacity is likely to be achieved through the use of larger aircraft, such as B757F or B767F on key routes, and larger turboprop aircraft such as ATR42 on regional freight routes. Aircraft such as the B757F, whilst larger, have a similar noise profile or are quieter than existing B747-800F aircraft.

Over time, dedicated freight infrastructure is expected to be required to facilitate a growing freight demand, particularly aircraft parking aprons to accommodate the peak overnight hub period. Options for additional freight parking areas include west of the RPT apron, south of the existing Fairbairn apron, and east of Taxiway Alpha. It is expected the initial growth phase of freight operations will be west of the RPT apron to provide connectivity with RPT services, which will continue to carry the majority of domestic and international freight. The development of new infrastructure will be managed so as to minimise any impact on existing Airport users.

Additional warehousing and offices will also be required to cater for an increase in the size of a freight hub. Whilst some of this demand will be adjacent to the aircraft parking areas, significant warehouse and office support functions are able to be housed elsewhere on Airport or even on land surrounding the Airport.

Beyond the planning period of this 2020 Master Plan, the frequency and size of freight aircraft are expected to grow via increased frequency on existing routes as demand increases beyond aircraft capacity. It is also possible one or more additional freight operators will commence overnight airfreight operations in Australia.

Increases in road transport are also expected to match increases in airfreight services. Within the ultimate planning period of this 2020 Master Plan [ie 20 years], up to ten trucks [B-double or equivalent] may operate to Sydney in association with increases in the overnight express freight system, along with two to three B-double truck services per night to Melbourne. Smaller vehicles may also commence regional truck services to complement regional airfreight operations, especially in South East NSW.

6.3 INTERNATIONAL AIRFREIGHT OPPORTUNITIES

Whilst the majority of international airfreight continues to be carried in the holds of passenger aircraft that will continue to use Sydney Airport and have commenced operations at Canberra, the Sydney Airport curfew means the growth of dedicated international freighter services will likely be constrained at Sydney Airport during the life of this 2020 Master Plan.

Dedicated international freighter services benefit from 24-hour operations. This schedule flexibility is critical to attracting international freight operators to Canberra to accommodate the needs of clients. This nature of operation is not suited to airports constrained by curfews, slot restrictions, and limited parking space for freight aircraft.

Canberra Airport as a curfew-free, slot-free, international capable Airport is well placed as an alternative to Sydney Airport, given its close proximity. Canberra Airport has already been approached by international airlines operating dedicated freight services to Sydney in regard to the opportunity to use Canberra Airport.

International airfreight operations run 24 hours a day worldwide and the timing of services to Canberra would be dictated by the schedule of the airlines concerned. These aircraft could well land and take-off in the 11pm-6am period and will be able to do so.

It is expected international airfreight services to Canberra will grow gradually, commencing with one airline operating two to three weekly B747-800F [or equivalent] services to and from Canberra within the next eight years. This number would be expected to gradually increase through the remainder of the life of this 2020 Master Plan as other airlines commence services and the frequency of flights increase and subject to the new Western Sydney Airport remaining curfew-free as planned. Although it is not expected Canberra would attract the entirety of the current Sydney freighter capacity within the life of this 2020 Master Plan, Canberra Airport anticipates receiving approximately three widebody international freighter aircraft per 24-hour period in addition to international passenger airliners.

The maximum freight payload of a B747-800 is approximately 110 tonnes. As it is expected some freight will be directly transferred to other aircraft for transport around Australia, it is unlikely more than two to three B-double trucks or equivalent trucks would be required to transport freight from a B747-800 freighter to Sydney. The international airfreight services may include the export of livestock which would be transported in livestock B-double trucks, mainly from Southern NSW. Figure 6.3 confirms the route expected to be taken by truck services, with all trucks operating away from residential areas.

Figure 6.5 depicts a composite of the Single Event Noise Contours of a B747-800F operating a freight service from Canberra to North Asia [eg, Hong Kong, Shanghai]. Noise from this aircraft is generally outside of the eastern boundary of Canberra, the noise abatement area, and the Western boundary of the Queanbeyan Noise Abatement Area, avoiding residential areas of the ACT and Queanbeyan [apart from future homes in South Tralee and South Jerrabomberra and some existing homes in Jerrabomberra and Fernleigh Park].

The existing aircraft parking apron at Fairbairn is currently able to accommodate B747-800F and equivalent aircraft and it is expected this would be sufficient to accommodate aircraft parking requirements during the first five years of operation. The terminal apron is also heavy aircraft capable. The initial growth phase of freight operations will be west of the RPT apron to provide connectivity with RPT services.

Warehouse and office infrastructure will be required in the short term to accommodate the commencement of international freight services, especially with respect to customs and quarantine requirements. This could initially be accommodated in existing facilities at Fairbairn but may require additional facilities to be constructed in the short to medium term. Some of these facilities may be colocated with facilities supporting the domestic overnight freight hub, although upgraded customs and quarantine facilities and facilities for the international transport of horses and livestock may also be required. Whilst some of this demand will be adjacent to the aircraft parking areas, significant warehouse and office support functions are able to be housed elsewhere on Airport or even on land surrounding the Airport.

6.4 REGIONAL INFRASTRUCTURE AND PLANNING IMPLICATIONS OF FREIGHT GROWTH

6.4.1 ROAD NETWORK AND ROAD FREIGHT

Ready car and heavy truck access to Canberra Airport has been provided with the completion of the Majura Parkway (14km of dual carriageway). The Parkway is designed to service high mass transport vehicles. The Parkway connects the Monaro Highway south of the Molonglo River to the Federal Highway at the north of the Majura Valley and is identified as a Tier 2 National Freight Route in ACT Government reports released in 2016 "Building an Integrated Transport Network – Freight" and 2018 "Moving Canberra 2019-2045 – Integrated Transport Strategy" and is an important link in Canberra's future Orbital Freight Network (Moving Canberra, Figure 11: ACT future orbital freight network) (Figure 6.4).

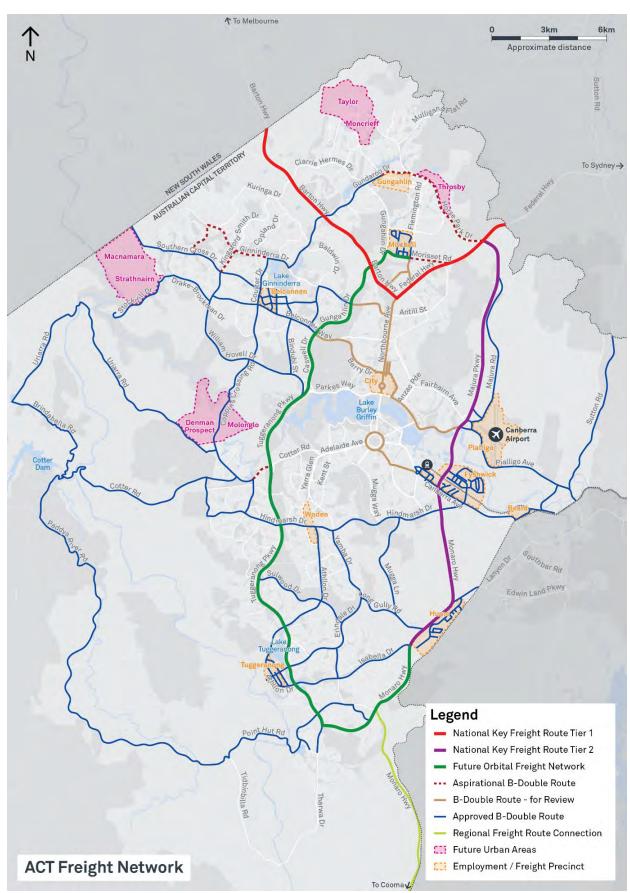


Figure 6.4 – ACT future orbital freight network (2018 Moving Canberra 2019-2045 - Fig 11)

The Parkway links the Canberra Airport to the national key freight routes moving interstate freight coming from Melbourne via the Barton Highway, from Sydney via the Federal Highway and to the south-east NSW region via the Monaro Highway and provides a connection away from residential areas.

A further outcome of the Parkway design is the creation of the Airport interchange, with connections to Fairbairn Avenue, and then onto Majura Road and Pialligo Avenue. Pialligo Avenue connects to the Kings Highway via Yass Road Queanbeyan.

The existing Singapore Airlines and Qatar Airways daily international passengers B777-300ER services provide in total a freight capacity per day of up to 50 tonnes (2x25 tonnes).

The increases in road transport vehicles associated with increased freight activity at Canberra Airport are expected to be limited. Within an eight year timeframe, it is estimated one to three additional B-double trucks or equivalent will operate from Canberra to Sydney and Southern NSW overnight as part of an overnight freight hub in addition to six weekly B-double trucks or equivalent based on a three-times weekly B747-8F international freighter service.

By the end of this 20-year 2020 Master Plan period, it is expected up to 20 B-double trucks or equivalent will operate to service the overnight freight hub, with an addition of approximately 40 B-double trucks or equivalent transporting freight, associated with a three times daily international wide-body freighter operation. These truck movements include the additional transport of aviation fuel to Canberra Airport to refuel these aircraft.

Trucks operating to Sydney [and in some cases Melbourne and Southern NSW] will use Pialligo and Fairbairn Avenues via the Majura Parkway or Sutton Road to access the Federal Highway [with connection to the Barton Highway where applicable], or Pialligo Avenue to the Monaro Highway, remaining away from residential areas at all times. These roads are all designated heavy vehicle transport routes and already accommodate large volumes of heavy vehicles on a daily basis.

From the Pialligo Precinct, vehicles will link directly onto Fairbairn Avenue to access the Majura Parkway, or alternatively onto Pialligo Avenue to link to the Monaro Highway or Sutton Road.

Truck services associated with the first stage of the freight hub are all expected to operate at night outside peak periods.

6.4.2 ECONOMIC AND LAND USE PLANNING IMPLICATIONS

"The growing importance of Canberra Airport to the regional economy stands out as a key economic driver. Canberra Airport is positioned to become a central freight hub for the region due to its lack of a curfew and road connections to Sydney." (ACT Transport Corridors).

The start-up of Pak Fresh in June 2018 at Canberra Airport, initially moving domestic freight for Virgin Australia, is now internationally capable in 2019 and positioned to service Singapore Airlines' and Qatar Airways' daily international operations.

In addition to Qantas Freight, Pak Fresh will grow the freight business at Canberra Airport over the next eight years in the interest of regional producers, industry and the community, exporting both domestically and internationally building on Canberra Airport as the global gateway for Canberra and Southern NSW.

"There is enormous potential for freight in the Canberra region. Canberra Airport and the national highways into and out of the ACT provide a good basis for the distribution of freight to both national and international markets." (ACT 2018 Planning Strategy). The creation of a true freight hub with nightly connections to all major Australian cities and international airports will also have a much greater long-term benefit by making it the single most attractive region in Australia for any time-sensitive manufacturing, logistics and distribution business to be located.

"A strategy is being developed by the ACT Government (Innovate Canberra) and key stakeholders, including the Canberra Airport, Austrade, the NSW Government and the business sector, to support the development of Canberra Airport and surrounding precinct as an international air freight hub." (ACT 2018 Planning Strategy).

Should a freight hub be established at Canberra Airport within 20 years, it is expected around 1,000 people would be employed by the freight industry at and around Canberra Airport, with a further 5,000 to 7,000 people employed in associated businesses.

Whilst a freight hub has implications for land use on Airport, significant impacts are also expected off airport. Demand for warehousing, freight-forwarding and similar facilities in the vicinity of the Airport, especially in the Eastern Broadacre, will increase as airfreight operations increase. Existing facilities at Fyshwick and Hume are suitably located and well suited initially to this land use; however, it is likely additional land will be required. Significant new development opportunities for this land use exist in the Majura Valley and City of Queanbeyan area adjoining the ACT industrial suburb of Hume, especially given such land as the "Poplars and North Tralee" is impacted by high levels of aircraft noise.

6.5 COMMUNITY IMPACT OF FREIGHT GROWTH

There are significant economic and employment benefits of a freight hub for the Canberra and region community, as well as broader benefits for Australian industry and the broader economy. Nevertheless, the concept of a freight hub causes concern to some members of the Canberra and region community.

6.5.1 ROAD TRAFFIC IMPACT

Canberra Airport confirms the road traffic impact of trucks transporting freight associated with a freight hub and international freight operations is extremely low compared with existing levels of road freight. Furthermore, truck traffic associated with the freight hub will use existing designated heavy vehicle routes and will avoid residential areas. In the short-term, a total of one to three B-double trucks or equivalent per weeknight are expected to operate to Sydney as part of the overnight freight hub, in addition to two B-double trucks or equivalent per international freight aircraft. In the 20-year planning period of this 2020 Master Plan, there are not expected to be more than 20 B-double or equivalent trucks per day including trucks carrying aviation fuel to support the overnight freight hub, with an additional 40 trucks supporting a three times daily international wide-body freighter operation.

Additional commercial and industrial development is expected to be located in the vicinity of Canberra Airport on account of additional airfreight operations at the Airport. This will increase road traffic, both in terms of people travelling to and from work, as well as vehicle movements directly attributable to the industry or development involved.

The current and future proposed upgrades to the metropolitan and regional road network, consistent with the Joint Government (Commonwealth, NSW and ACT) 2018 "Road Infrastructure Investment Prioritisation" Final Report (2018 ACT Transport Corridors study) have been designed to meet demands of Airport and regional users for the planning period of this 2020 Master Plan and beyond. Recent discussions with the ACT Government have confirmed the current road systems have been designed for, and will accommodate, the growth and developments outlined in this 2020 Master Plan. Notwithstanding this, Canberra Airport will continue to consult with the ACT Government [TCCS], as well as the Queanbeyan-Palerang Regional Council and NSW Roads and Maritime Services to review any additional infrastructure requirements generated consistent with the 2018 ACT Transport Corridors study.

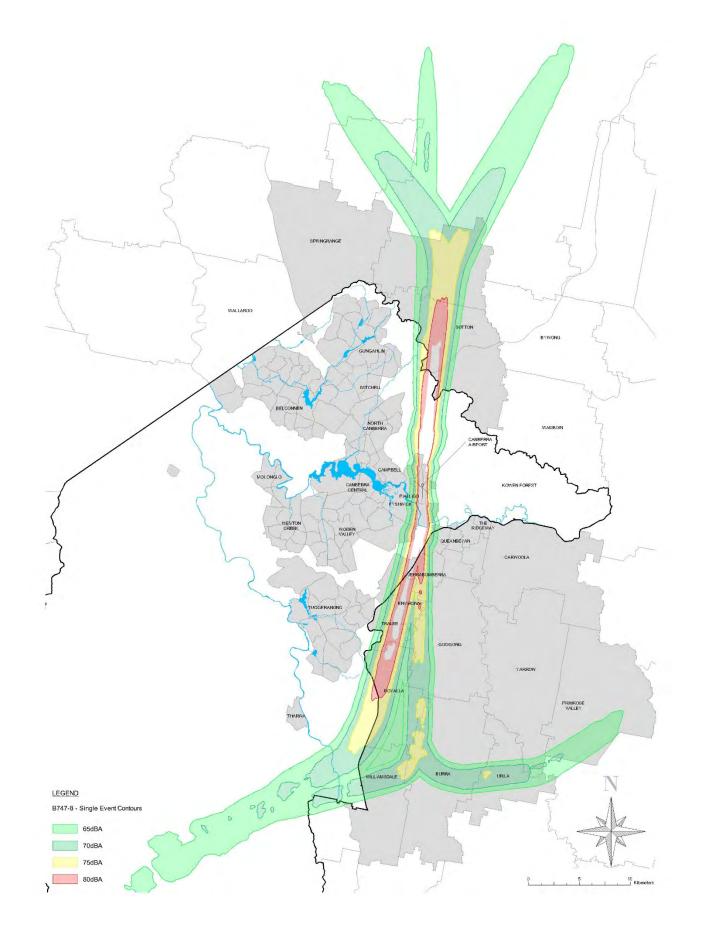
6.5.2 AIRCRAFT NOISE IMPACT

The impact of aircraft noise at night has the potential to cause greater impact than aircraft noise during the day.

The impact on the community from night freight flights is mitigated by the fact aircraft can arrive and depart into Canberra Airport without overflying residential areas and of the 190,000 houses located in Canberra and Queanbeyan only 800 are located within the 20 ANEF and outside the Canberra and Queanbeyan Noise Abatement Zones.

Refer to Figure 6.5 showing the single event LAMAX noise impact of a typical B747-800 aircraft operating an international freight service to North Asia. This Single Event Noise Contour is a composite of arrival and departure flight paths to both the south and north of the Airport. These figures demonstrate residents within the ACT will unlikely to be impacted, however some within Jerrabomberra and South Jerrabomberra will be exposed at any time of the day and the night to noise over 65dBA LAMAX [Single Event Contour] as part of a freight hub.

Figure 6.5 – Single event noise composite footprint Boeing 747-800



6.5.3 PROTECTING THE COMMUNITY FROM ADVERSE NOISE IMPACT

As outlined in detail in Chapter 12, the majority of the Canberra community is protected by the noise abatement areas, preventing low-level jet and large turboprop aircraft overflight. As also set out at Chapter 12 other noise abatement procedures have been implemented to provide noise respite to those residents not positioned within the noise abatement areas.

Canberra Airport supports a prohibition of aircraft overflight of the noise abatement areas at night, except in rare circumstances where operationally required. This extends to all operators, the terms already agreed to by existing night freight and other operators, to provide respite to residents of Canberra and Queanbeyan at night.

Canberra Airport will not allow significant night freight operations to commence from Canberra Airport without this protection, either in the form of a Night Noise Agreement [as exists currently] with the individual airfreight operator, or in the form of a broader restriction of overflight of the noise abatement areas.

This 2020 Master Plan proposes such restrictions as follows:

- No aircraft operating to or from Canberra Airport is permitted to overfly the Canberra and Queanbeyan Noise Abatement Areas at any height except where operationally required between the hours of 11pm and 6am local; and
- > Operational requirements include avoiding inclement weather [ie, storm cells], urgent medical transport, or in the event of an aircraft emergency.

Chapter 12 outlines further noise abatement measures in place to protect residents, especially in Jerrabomberra from aircraft overflight, including a night noise abatement procedure to avoid overflight of Jerrabomberra homes where weather conditions permit.