



three
CONSULTING

**Development of Aviation Strategy for
East Kimberley Regional Airport v4.0**

**Prepared for: The Airport Group, and
Shire of Wyndham East Kimberley**

September 2018

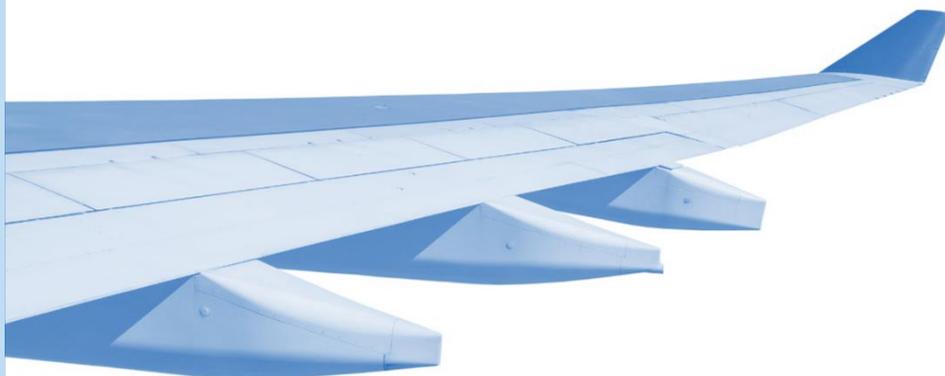


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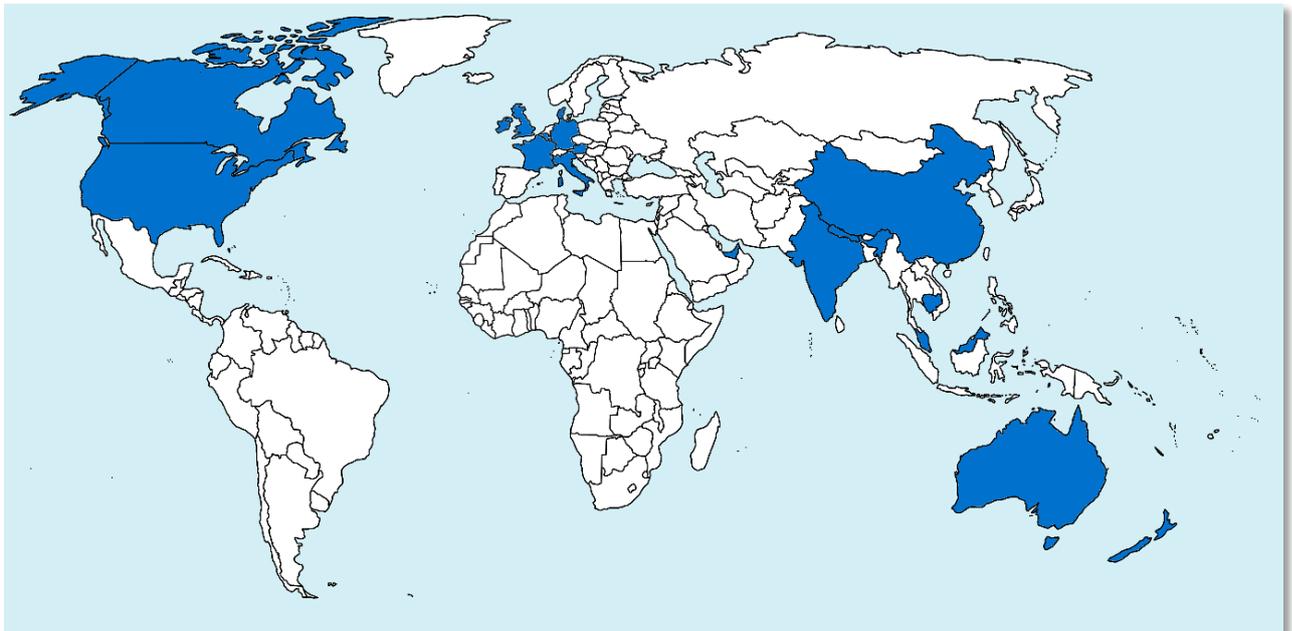
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1. Introduction

1.1. three consulting Company Background

three consulting pty ltd is a specialist aviation consultancy focused on delivering high quality and effective results for our clients. At three consulting, we understand the aviation value chain and have developed a range of services that can deliver seamless results across a number of specialisations. From the initial allocation of airline capacity through to commencing operations of newly constructed infrastructure, we have the ability to guide clients from high-level strategic planning through to day of operations and beyond.

There are no career or junior consultants at three consulting with our core team having held senior management positions at leading airports, airlines, and tourism organisations around the world. With a combined half century of experience, three consulting staff have been involved in many projects specifically related to airports and their strategic and operational plans. The team has completed work in 20 countries allowing us to bring a truly global perspective to our clients.



three consulting staff have worked with, for, and on behalf of some of the leading aviation and travel organizations from around the globe including, but not limited to:



three consulting leverages its experience across a select number of major business units:

Aviation Management Consulting

three consulting understands the intricacy of the business of aviation and what is required of airports, airlines, and related service providers to become market leaders. Gleaned through decades of combined experience, three consulting has the ability to give clients the knowledge required in today's market place. Key services include:

- Airport Aviation Strategy Development
- Air Traffic Demand Forecasting
- Airport Rates and Charges
- Marketing Strategies
- Business Planning
- Feasibility Studies
- Strategic Planning
- Commercial Due Diligence
- Business Negotiation Support

Air Service Development

three consulting is a market leader in air service development for airport and airline clients. Utilising our wide range of experience, proprietary and industry data sources, and extensive airline contacts, we are able to bring unsurpassed results to our clients. We have been highly successful in securing air services for our client airports ranging from ultra-long-haul wide-body to regional turboprop operations. Our intimate knowledge of airline network planning, taken from over 15 years of experience with leading international airlines such as United Airlines, British Airways, Lufthansa, and Qantas Airways, allows us to produce targeted and effective route business cases. three consulting's typical route business case considers scheduling options, connectivity, market stimulation, market share calculations and concludes in a detailed economic route forecast down to the profit / loss level. Key services include:

- Airline Route Business Case Development
- Airline Engagement Strategies
- Aviation Business Strategy Development
- Low Cost Strategies
- Airline Incentive Strategies

Aviation Market Research

three consulting has the capability to undertake market research that provides valuable insights and timely business intelligence. Our market research can be used to test markets, qualify leads, measure effectiveness and gauge stakeholder opinions. The ability to design, conduct and analyse custom-made surveys is of particular importance for our work with non-capital city airports, where traditional, generic, off-the-shelf aviation data typically lacks the necessary granularity to help create robust market sizes, understand price elasticity of demand and related issues. Key services include:

- Catchment Area Surveys
- On-Site Surveys
- Corporate Surveys
- Specialised Surveys (e.g. student, specific industries)

1.2. Relevant Experience

three consulting staff benefit from decades of airline, airport, tourism and related industry experience through working within some of the largest airlines, airports and tourism organisations globally. We have had recent and ongoing successes in formulating aviation strategies, producing route forecasts and route business cases, as well as engaging and presenting route business cases to all major as well as regional Australian airlines. A selection of these projects can be found below:

Christchurch International Airport, New Zealand, 2015 – 2016

Formulation of Aviation Strategy

three consulting has been engaged by Christchurch International Airport Limited (CIAL) to collect relevant data, investigate and analyse aviation development at Christchurch and other main NZ gateways between 2010 (year before the Canterbury Earthquakes) and 2014, and to develop an aviation strategy to support the rebuild of the city of Christchurch. We analysed and defined where CHC traffic development could have been if it wasn't for the effects of the Canterbury Earthquakes. This helped determine a strategy, with a particular focus on the international market place, on how to claw back capacity from international air service providers. Since the finalisation of the project CIAL has secured capacity by new entrant carriers such as China Airlines, China Southern Airlines and capacity additions by Qantas and Virgin Australia.

South Australian Tourism Commission, SA, 2016

Development of China Aviation Strategy

During an RFP process, three consulting was chosen to produce a China Aviation Strategy for the South Australian Tourism Commission along with Adelaide Airport and the Department of State Development. This strategy has resulted in direct services commencing between Adelaide and Guangzhou with China Southern Airlines.

Dunedin International Airport, New Zealand, 2015

Formulation of Aviation Strategy

three consulting has been engaged by Dunedin International Airport to investigate recent traffic developments at the airport, including the discontinuation of international services to both Sydney and Melbourne and to develop an aviation strategy to make Dunedin a more prominent player for Trans-tasman services as well as to sustainably grow passenger throughput. Primary research in the form of surveying was conducted for catchment residents, the student population, and local businesses. Primary research data was combined with industry and immigration data to create an understanding of the opportunity and to determine market and carrier targets. We are currently in

the process of engaging both Jetstar and Virgin Australia with a view to re-instating flights to both Sydney and Melbourne.

Hobart Airport, TAS, 2014 – 2015

Market Research and Route Business Case

To support the creation of a route business case for same-day return services on the HBA – SYD market, three consulting created and conducted a corporate survey investigating the travel needs of Tasmania's largest companies. The results of the survey were leveraged in the development of a route business case aiming to increase services directly for this market segment. As a result, Qantas increased its capacity into Hobart by basing 2 B717's at the port.

Hobart Airport, TAS, 2018

Domestic Aviation Strategy and General Aviation Business Development Support

International project work was followed by an engagement for the development of a domestic aviation strategy which has been started off with a catchment survey in the Greater Hobart area and a soon to be started on-site survey conducted at Hobart Airport. Moreover, three consulting will update the airport's aviation management reporting system and remain involved in Hobart Airport's aviation business development matters.

Sunshine Coast Airport, QLD, 2015 – 2016

Air Traffic Forecast

three consulting was commissioned to produce a 20-year traffic and aviation activity forecast for use in a sell-side due diligence process for Sunshine Coast Airport. Two aspects were of particular concern; firstly the design of a fairly long-term bottom-up or supply-based forecast to capture the current growth phase at the airport; secondly the calculation of applicable MCY capture rates for both the outbound and inbound travel markets in light of strong schedule and price competition from Brisbane Airport. Another aspect worth mentioning was the requirement to prepare separate forecasts for a scenario under which the current aviation infrastructure remained unchanged, another one for a runway redevelopment scenario.

2. Project Appreciation and Understanding

East Kimberly Regional Airport – Kununurra (KNX), owned and operated by The Shire of Wyndham East Kimberley (SWEK), serves a catchment population of approximately 7,400 residents, as published by Remplan and sourced by SWEK. Of these, around one third identify as a Torres Strait Islander or Aboriginal person. According to data provided by SWEK, the area attracts a relatively high number of non-residents. At Census Night 2016, around 4,000 non-residents, thought to visit the region for both business and holiday purposes, were counted.

The East Kimberley must be considered as one of the more remote regions not only in Western Australia but Australia overall. With the closest state capital, Darwin, around 830 km's or more than 9 driving hours to the North East and Perth more than 3,000 km's to the South West. Access by air is of critical importance to the region, which is currently (Northern Summer 2018 scheduling season) provided by both Airnorth (9 weekly departures to Darwin (DRW), 7 to Broome (BME), as well as 1 to Perth (PER)), and Virgin Australia (4 weekly departures to PER).

Due to runway length constraints (1,829 metres), KNX is limited to Code 3C aircraft operations, making Airnorth's Embraer 170 (76 seats) and Virgin Australia's Fokker 100 (100 seats) aircraft, that are currently in use at KNX, among the largest types that the airport is licensed for. These types limit KNX not only in terms of available seat capacity, but also in terms of network breadth, putting South Asian hub airports out of KNX's current range and making services to Australia's East Coast economically challenging as the Fokker 100's cost structure does not lend itself to allow attractive fares on flights close to 3,000 km's in distance.

The KNX Master Plan was updated with the assistance of The Airport Group and adopted by Council in July 2017. The Plan foreshadows growth in aviation activity to reach in excess of 215,000 passengers in FY37 and has been used for planning key developments that should occur in the short, medium and long term. The Plan confirms B737-800 and A320 as the design aircraft and upgrading of the Airport from Code 3C to 4C.

Capital expenditure requirements for the upgrade are estimated at just over \$20 million, which would have to be sourced through grants from one or a combination of federal and state governments. Grant applications by SWEK will need to rely on robust business cases and cost benefit analysis, where this component of the overall project investigates aviation business development opportunities for KNX over the short to medium term future.

3. Data Environment

In preparing this report we used the following data sources:

- 1) **Airport Operating Statistics:** We received monthly RPT Movement and RPT traffic data from SWEK, spanning the period from FY06 to CY17;
- 2) **BITRE:** BITRE (Bureau of Infrastructure, Transport and Regional Economics) aviation data was used to estimate current charter traffic and to produce comparisons to other airports in the Kimberley and Western Australia;
- 3) **ABS Census:** Used for the calculation of travel propensities and to create a time-series on number of jobs by industry and by employee residency to assess FIFO and visitor non-leisure travel;
- 4) **National Visitor Survey (NVS) / International Visitor Survey (IVS):** Analysis of NVS and IVS helped determine a time line of visitation to the Kununurra area, both for leisure and non-leisure purposes, resulting growth rates, etc;
- 5) **REMPPLAN Economy:** Analysis of REMPLAN Economy provides insight into the economic structure to the East Kimberley Region. Impact models were used to estimate the economic benefits additional jobs/projects will bring into the region; and
- 6) **Fare Scrapes:** We scraped the websites of both Airnorth and Virgin Australia to create an understanding of current air fares to KNX's main direct destinations, DRW and PER.

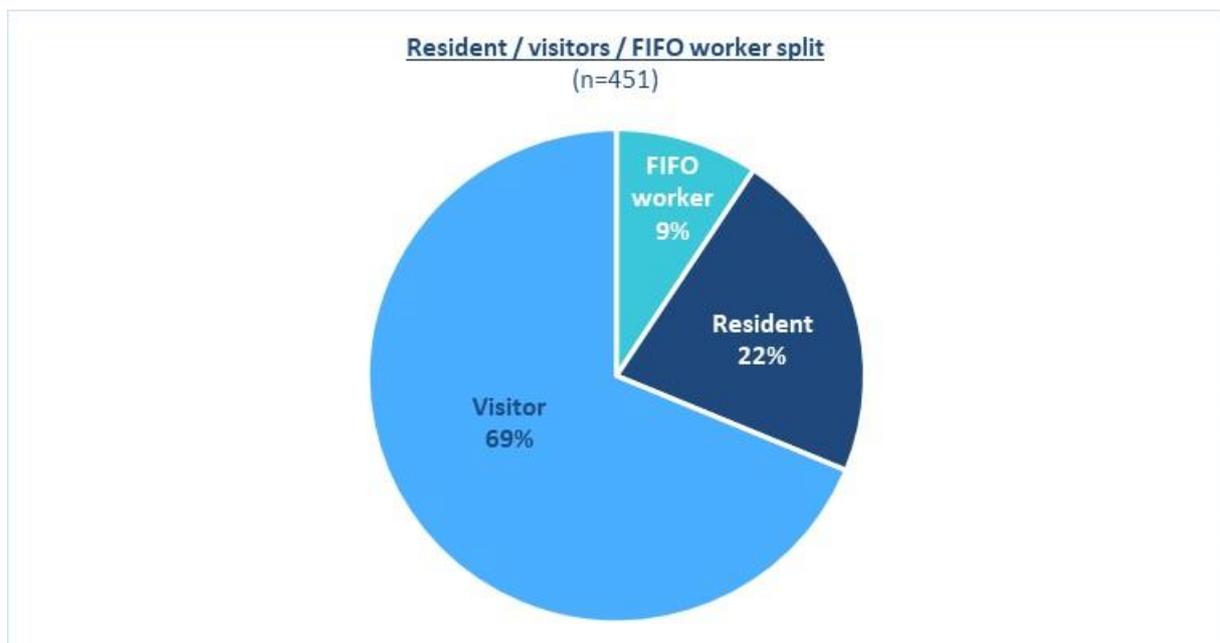
3.1. On-Site Survey

With the help of SWEK we conducted an on-site survey in the passenger terminal at KNX, obtaining information from passengers passing through the facility. The survey ran between Tuesday, 29th May and Sunday, 17th June, with every weekday covered twice during this period, reaching a total of 451 travellers. Whilst the survey produced extremely valuable insights, it comes with limitations such as the following:

- As an on-site survey it can't pick up latent travel demand by current non-passengers
- Continuing from the above, the survey also can't be used to determine the reasons why these potential passengers don't travel (e.g. current air fare levels, lack of convenient schedules, required lay-overs, etc.)
- As the survey was conducted in the RPT passenger terminal, there is no data relating to charter passengers (both inter-regional and intra-regional)

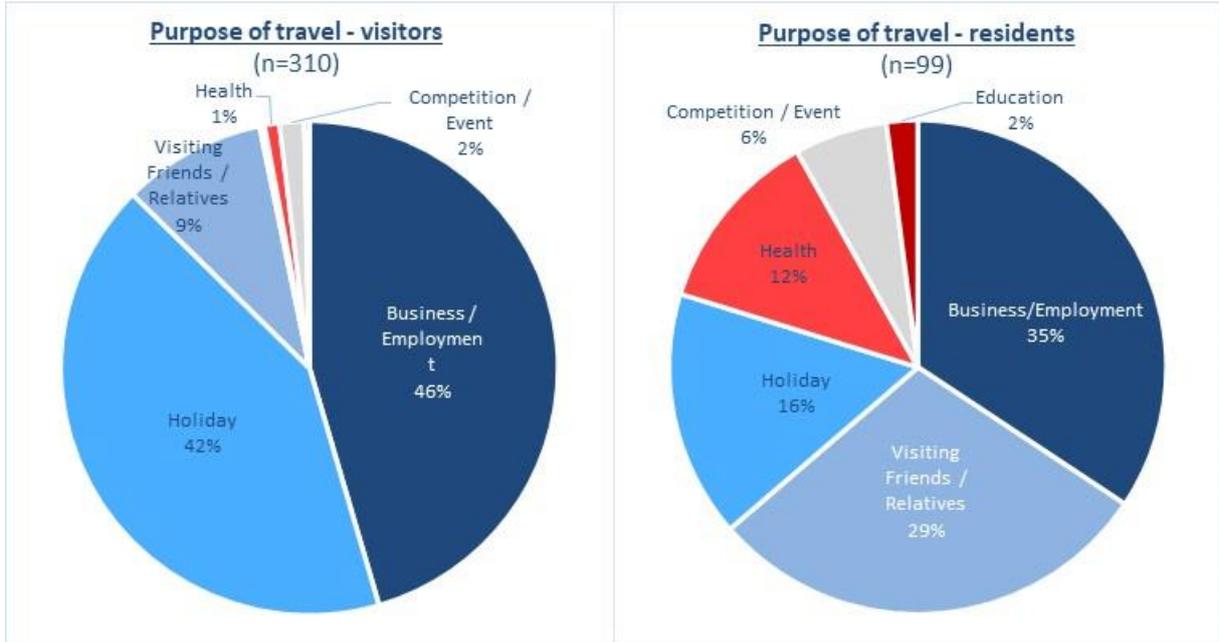
The following summarises some of the more important insights gained through that survey.

FIGURE 1: KNX AIRPORT PASSENGER SPLIT



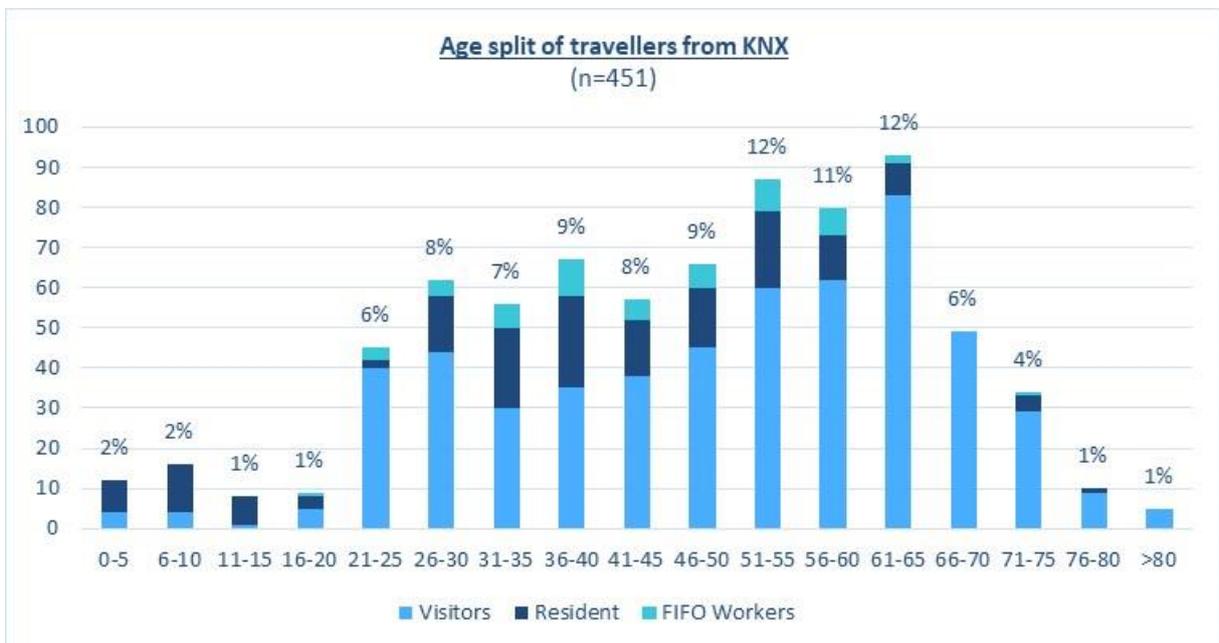
The purpose of travel split presented in Figure 1, and further split in Figure 2, highlights the role of the airport as a lifeline to two state capitals, the rest of Australia and the rest of the world. Overall, non-discretionary travel outweighs holiday travel, with business and VFR (visiting friends and relatives) purposes appearing strong for both residents and visitors.

FIGURE 2: KNX AIRPORT PURPOSE OF TRAVEL SPLIT



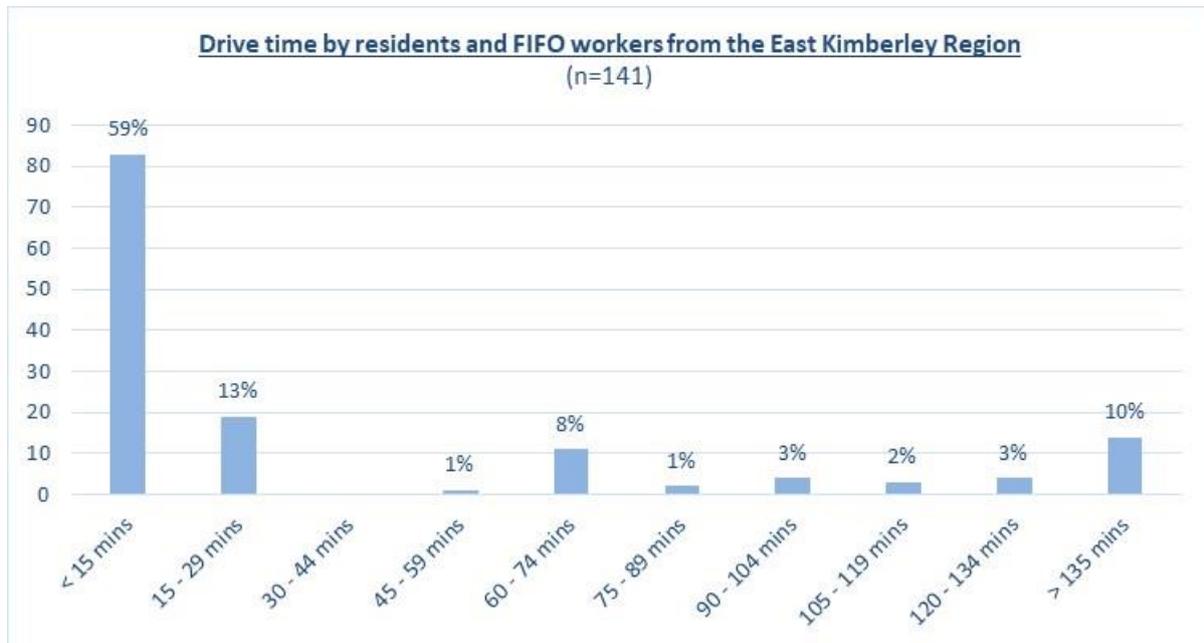
The age distribution of travellers appears skewed towards the 50+ brackets (around 47%), driven by inbound visitors; this corresponds well to information drawn from the NVS, highlighting that 54% of holiday visitors to the East Kimberley region are more than 50 years old.

FIGURE 3: KNX AIRPORT AGE OF TRAVELLERS (ALL TRAVELLERS, INCLUDING NON RESPONDENTS)



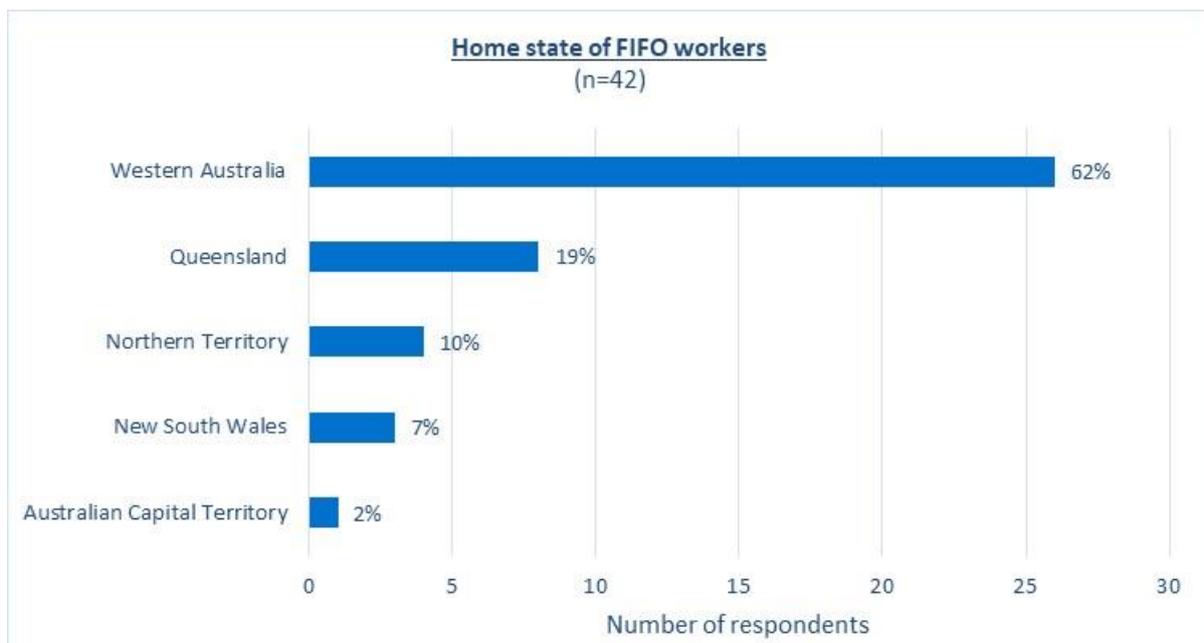
As expected, the overwhelming majority of local travellers, almost two thirds, live within 30 minutes of KNX, with the remaining third travelling to the airport from further away, such as Wyndham and Halls Creek.

FIGURE 4: KNX AIRPORT ACCESSIBILITY



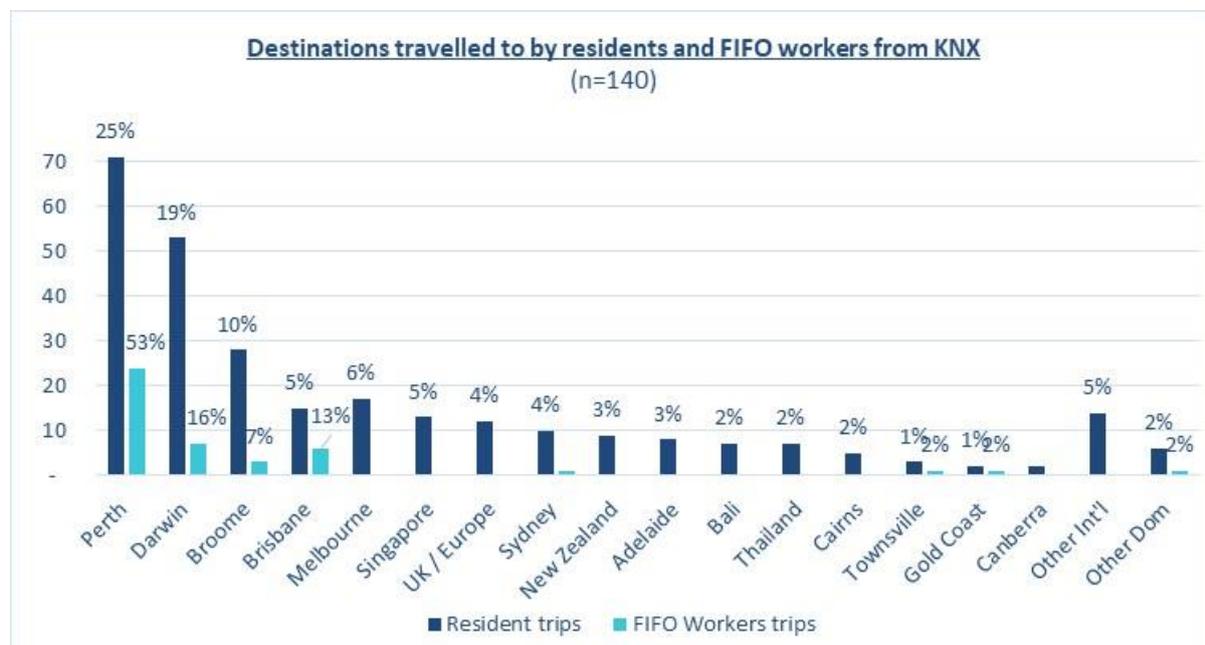
As also indicated by ABS Census data, the overwhelming majority of East Kimberley based FIFO workers (currently estimated at around 700) commute from other areas of WA, most from Perth.

FIGURE 4: KNX AIRPORT FIFO WORKER HOME STATES



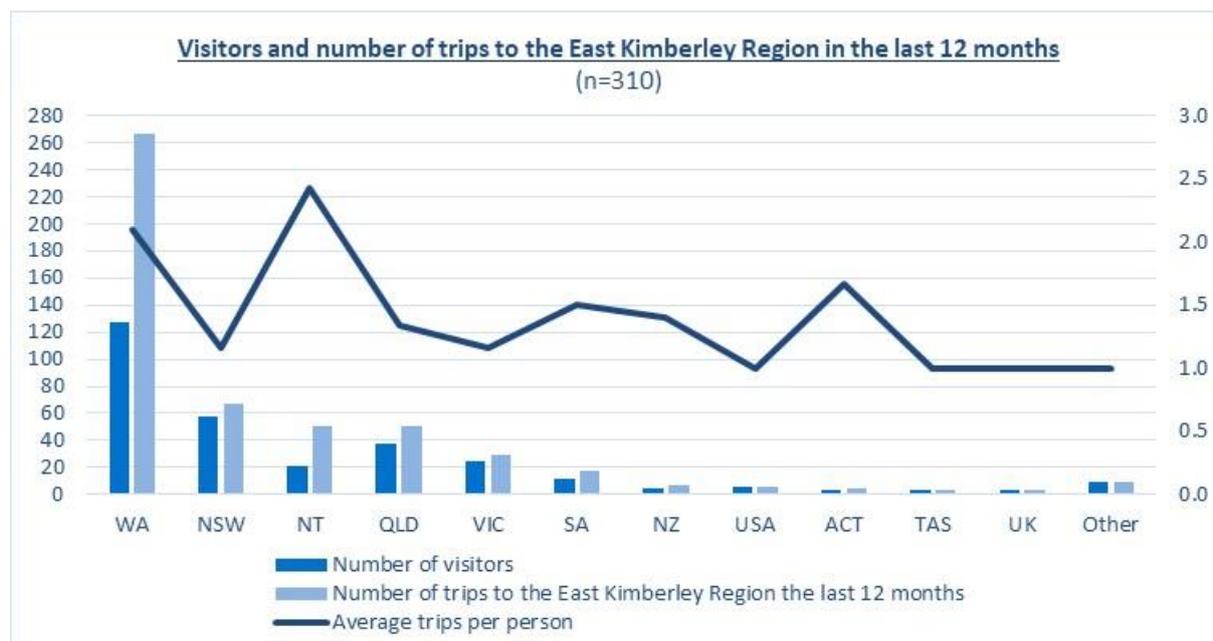
Just around 57% of travel needs among residents and FIFO workers are to currently served markets, PER, DRW as well as BME, indicating the potential for widening KNX's destination portfolio.

FIGURE 5: KNX AIRPORT RESIDENT AND FIFO DESTINATION PORTFOLIO



The picture is different for visitors to the region, as less than 50% of them travel from Western Australia and the Northern Territory but around 45% from East Coast states (Queensland, New South Wales, and Victoria).

FIGURE 6: KNX AIRPORT VISITOR HOME PORTFOLIO



As far as the final destination of respondents on the day they were interviewed was concerned, this was led by PER (37%), followed by DRW (31%) and BME (16%) and the combined Australian East Coast

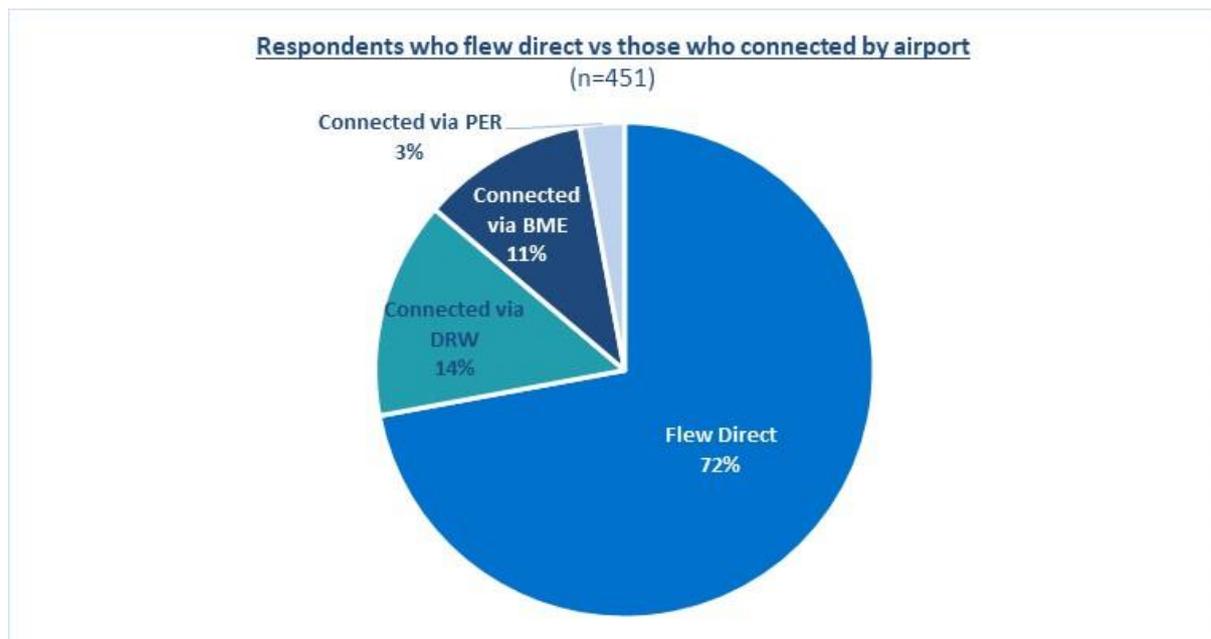
(15%). Overall demand to and from East Coast destinations based on the On-Site Survey are in line with findings from past research projects, however, demand distribution among East Coast cities is different in so far, that this time Sydney and Brisbane come out strongest whilst other research has Melbourne on top of other East Coast destinations.

FIGURE 7: KNX AIRPORT ORIGIN & DESTINATION PORTFOLIO



Corresponding to the above, almost 30% of KNX passengers need to connect to reach their final destination with most connections happening via DRW. Interestingly BME is a close second with many passengers forced to fly to PER via BME as KNX lacks a daily PER service.

FIGURE 8: KNX AIRPORT NONSTOP VS CONNECT ITINERARIES



Not surprisingly, most Airnorth and 20% of Virgin Australia passengers chose respective airline as it's the only option available, highlighting the obvious lack of airline and destination choices at KNX.

FIGURE 9: AIRLINE CHOICE AT KNX AIRPORT



51% of travellers paid more than \$800 for the round-trip they travelled on. The average roundtrip fare is estimated at \$1,170, the median fare at \$1,030, making KNX one of the more expensive origins and destinations around Australia. We fare scraped the websites of Airnorth, Virgin Australia and Qantas and determined blended market fares of \$456 +GST for KNX – PER and \$320 + GST for KNX – DRW. At 72 cents per flown kilometre between KNX and DRW, access to KNX's most important connect point comes at very high cost.

FIGURE 10: AIRLINE PRICING AT KNX AIRPORT



An investigation of price elasticity of demand by current KNX passengers shows that almost one half of travellers seem fairly inelastic pointing to the utility function of the airport. Cross-referencing price elasticity with purpose of travel information confirms that price inelastic travel mostly relates to passengers who do not pay for their travel arrangements (e.g. FIFO workers, government representatives, etc.).

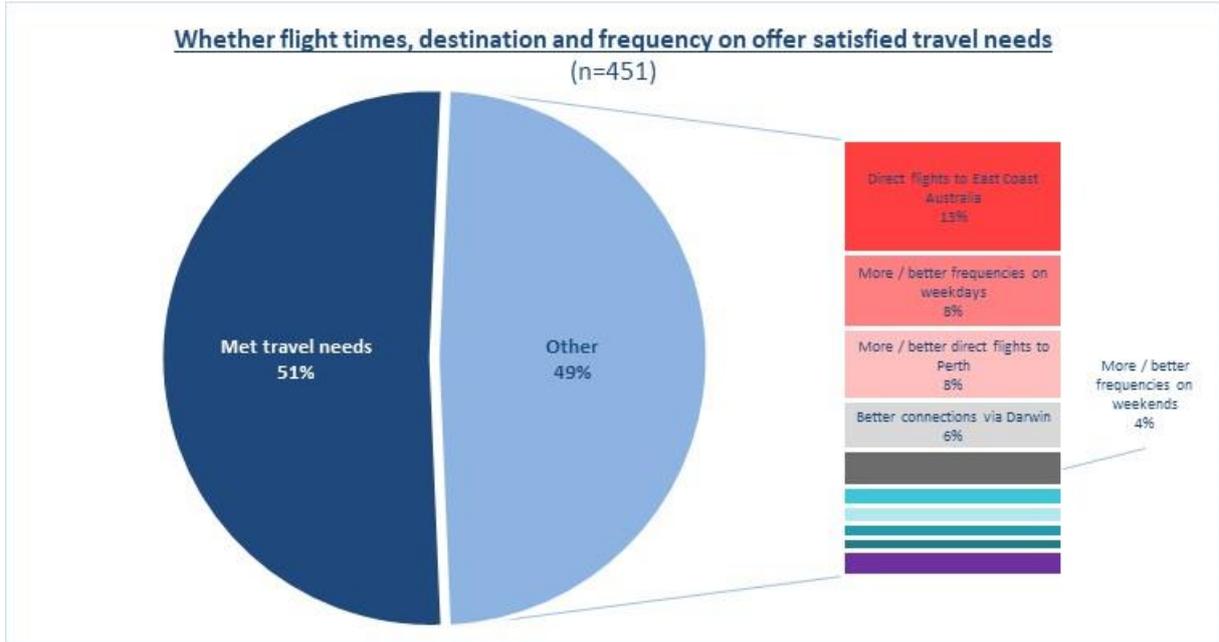
Having said this, around 40% of travellers would react positively to a 25% decrease in fares, pointing to pent up demand among **current** users. We are led to assume that pent-up demand levels are even higher by **potential** KNX users, both residents and visitors, deterred by the current air fare environment.

FIGURE 11: PRICE ELASTICITY AT KNX AIRPORT



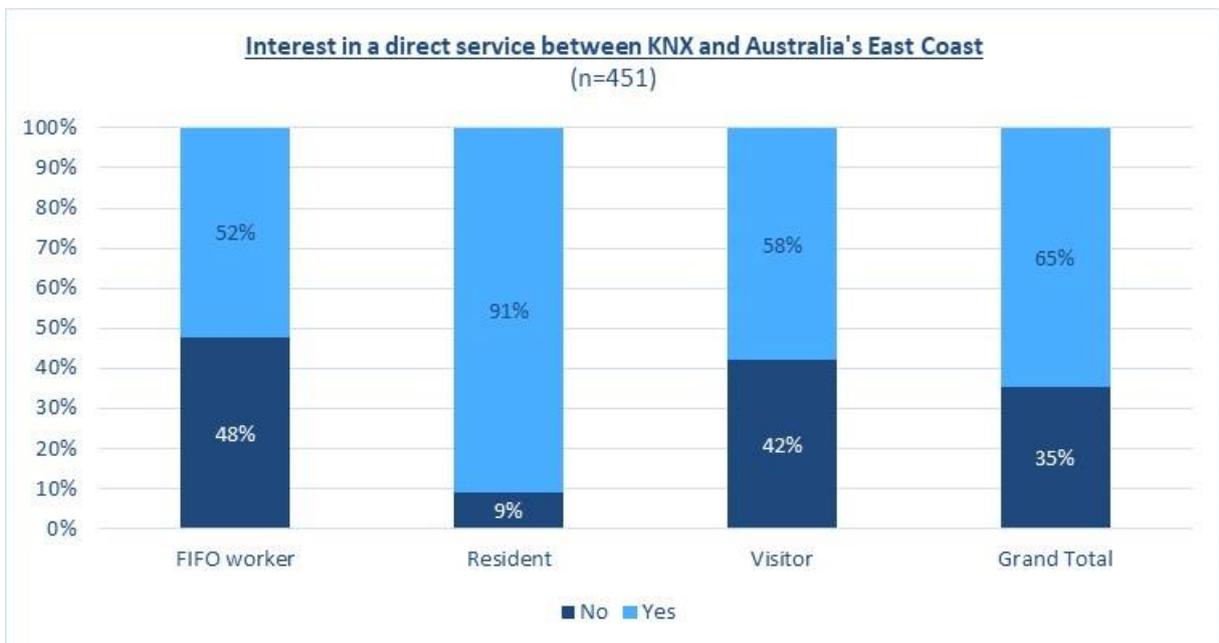
Apart from airline pricing aspects, travellers are split evenly among the ones that are satisfied with KNX's current aviation offer and the ones that are not. The most common requested areas of improvement are direct flights to the Australian East Coast, more flights to PER as well as more frequencies on weekdays. Another frequent request relates to better connections via DRW, with current connect times on itineraries between KNX and the Australian East Coast routinely as long as 7 to 10 hours.

FIGURE 12: KNX AIRPORT PASSENGER SATISFACTION WITH AVIATION OFFER



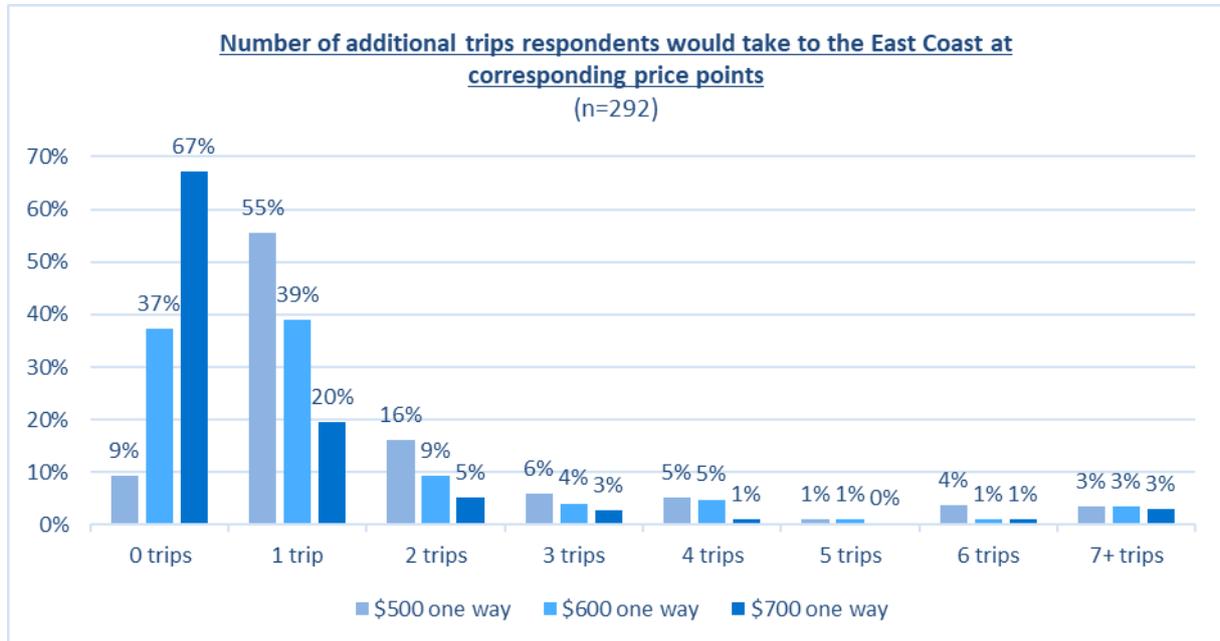
When asked directly about interest in direct (non-stop) flights between KNX and Australia’s East Coast (where this could be flights to BNE, SYD, or MEL), 91% of residents and 58% of visitors, or 65% of all travellers indicated such interest.

FIGURE 13: KNX AIRPORT PASSENGER INTEREST IN SERVICES TO AUSTRALIA’S EAST COAST



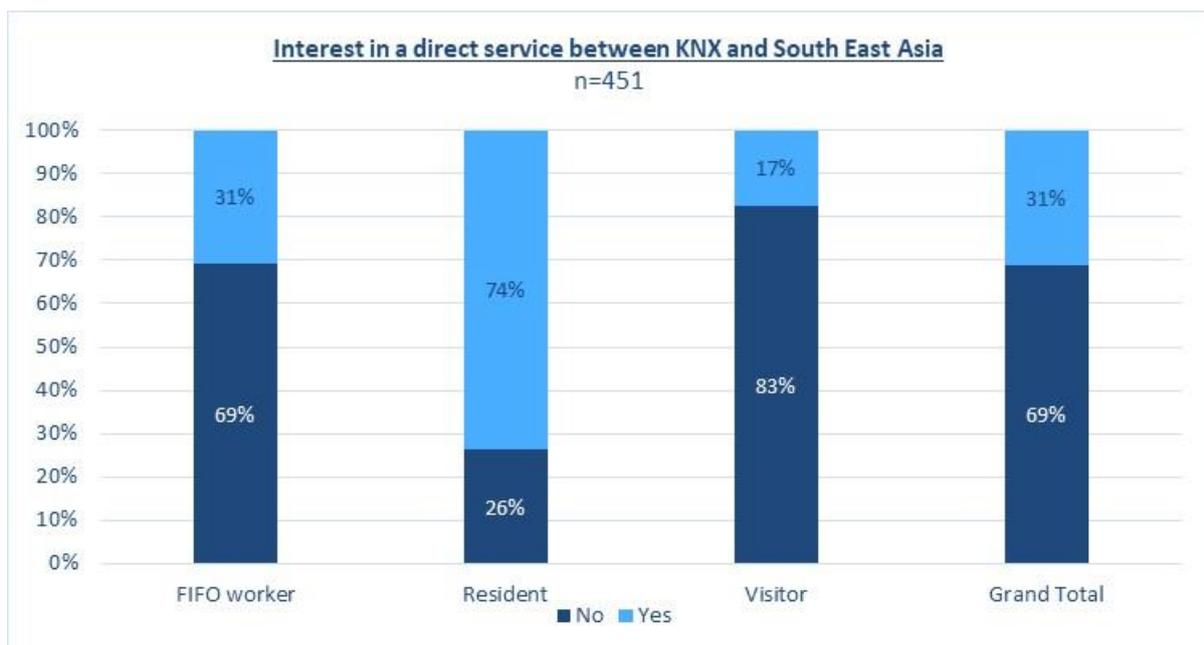
Asked further, more than 80% of respondents would be willing to pay \$500 one way for a flight (1 or more trips per annum) between KNX and the East Coast and still in excess of 50% would be willing to pay \$600 for that flight option.

FIGURE 14: KNX AIRPORT PASSENGER INTEREST IN SERVICES TO AUSTRALIA’S EAST COAST AT SPECIFIC PRICE POINTS



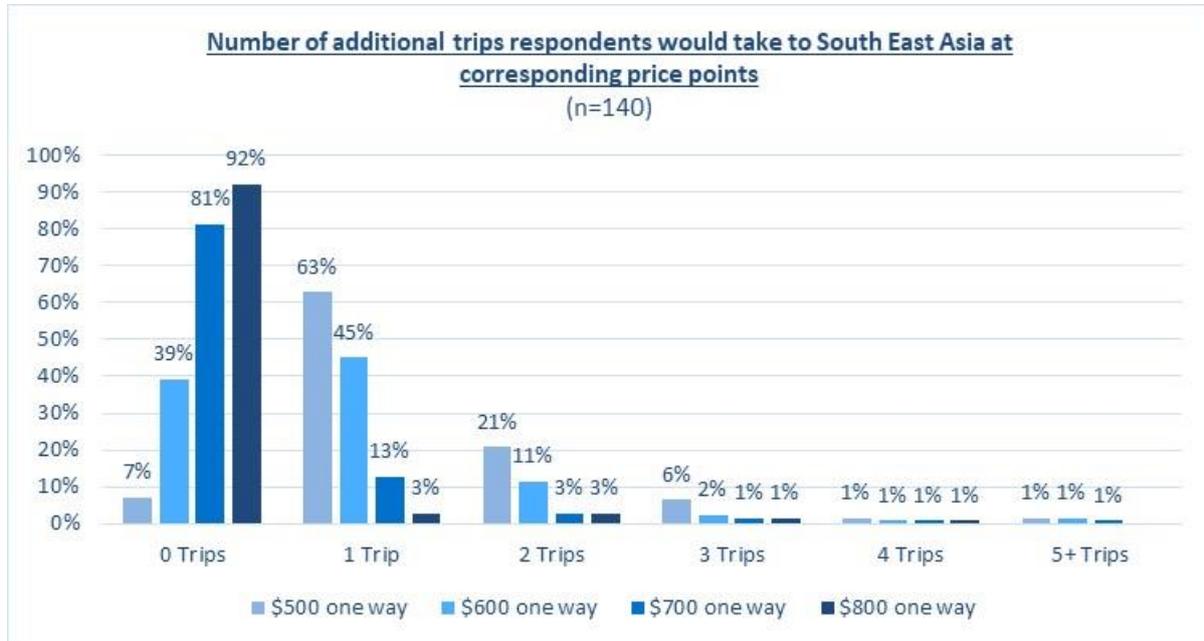
When asked directly about interest in direct (non-stop) flights between KNX and South-East Asia (where this could be flights to SIN, KUL, or DPS), 74% of residents and 17% of visitors, so just 31% of all travellers indicated such interest.

FIGURE 15: KNX AIRPORT PASSENGER INTEREST IN SERVICES TO SOUTH EAST ASIA



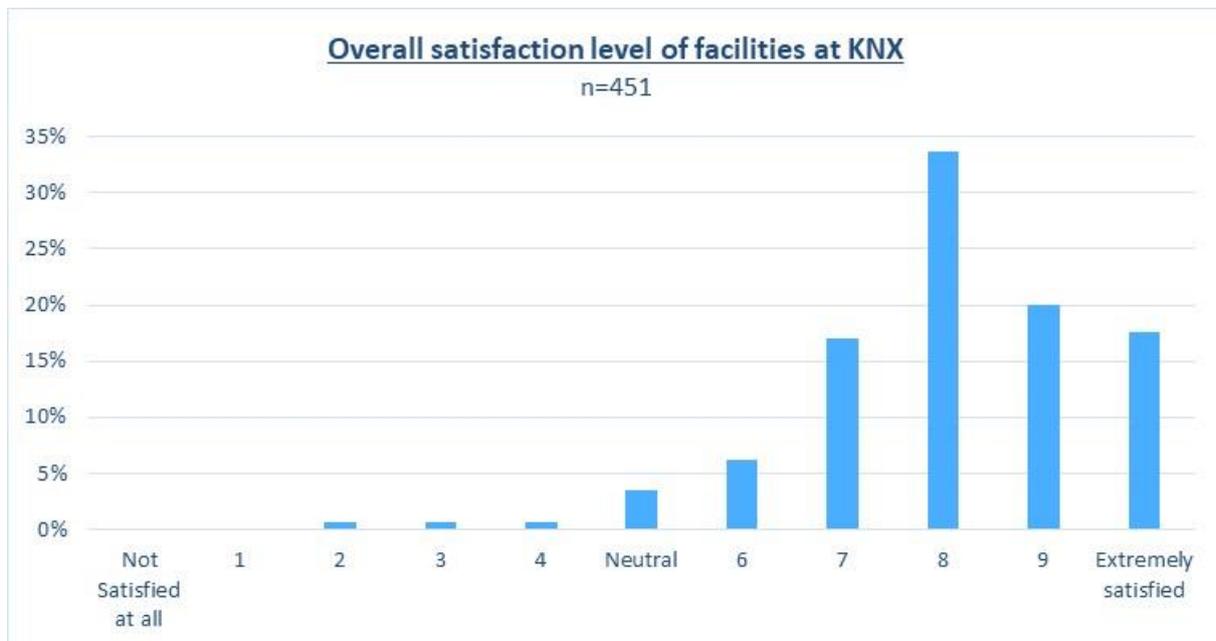
Asked further, more than 80% of respondents who are interested in flights to South-East Asia would be willing to pay \$500 one way for this option (1 or more trips per annum) and still in excess of 50% would be willing to pay \$600.

FIGURE 16: KNX AIRPORT PASSENGER INTEREST IN SERVICES TO SOUTH-EAST ASIA AT SPECIFIC PRICE POINTS



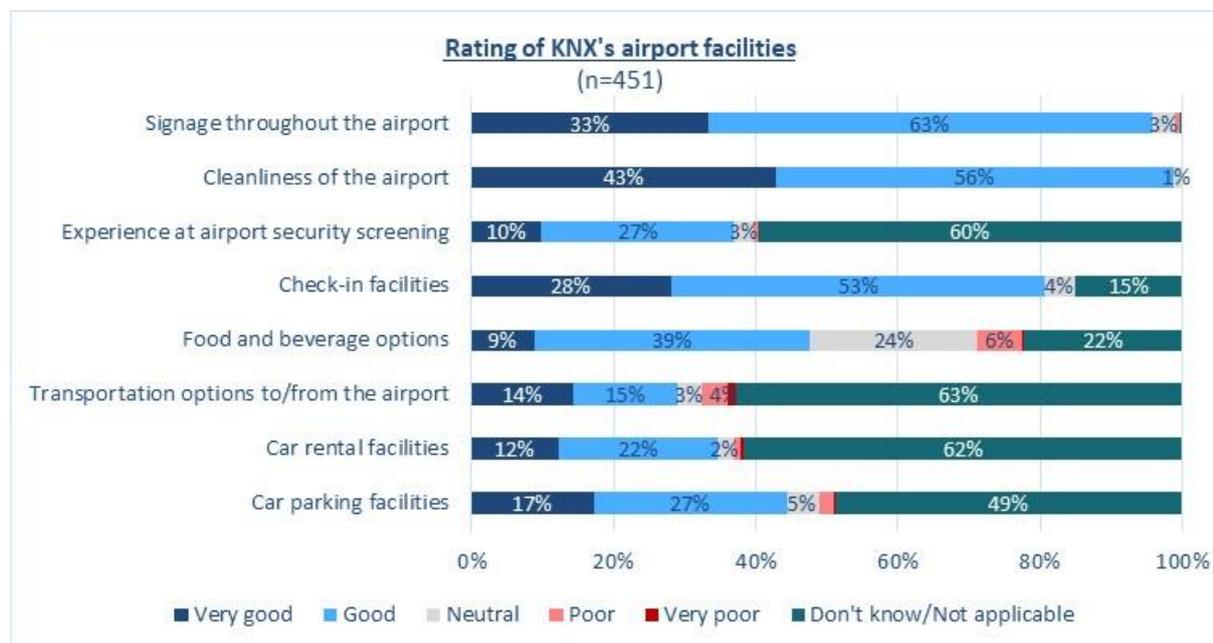
Looking at the airport by itself, keeping aviation service and pricing aspects out of consideration, current users appear very to extremely satisfied with East Kimberley Regional Airport.

FIGURE 17: KNX AIRPORT OVERALL SATISFACTION LEVELS



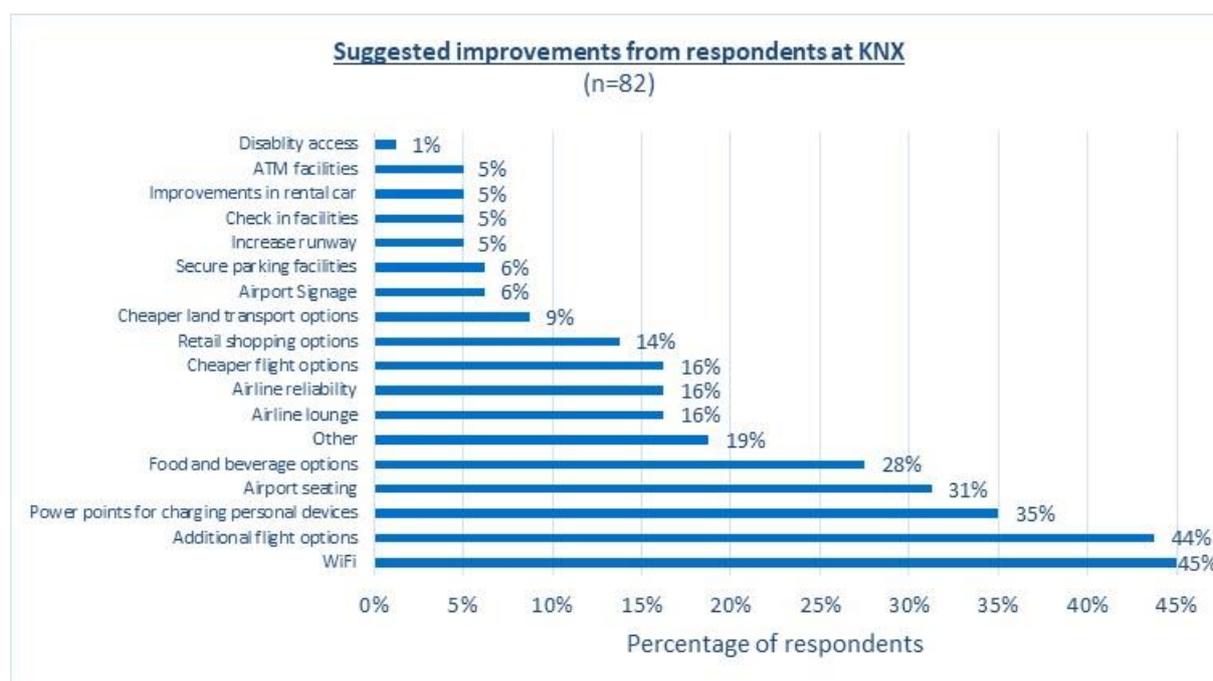
Looking into satisfaction levels about specific airport facilities suggests food and beverage options, as well as transportation options to and from the airport would lend themselves to improvement.

FIGURE 18: KNX AIRPORT OVERALL SPECIFIC SATISFACTION LEVELS



And finally, when asked for comments as to what could be improved at the airport, without prompting or suggesting certain areas, food and beverage options, seating, public power points and Wifi access rated highest among areas under the airport's control. The other key suggestion refers to additional flight options basically verifying many of the other findings provided by the on-site survey.

FIGURE 19: KNX AIRPORT IMPROVEMENT SUGGESTIONS



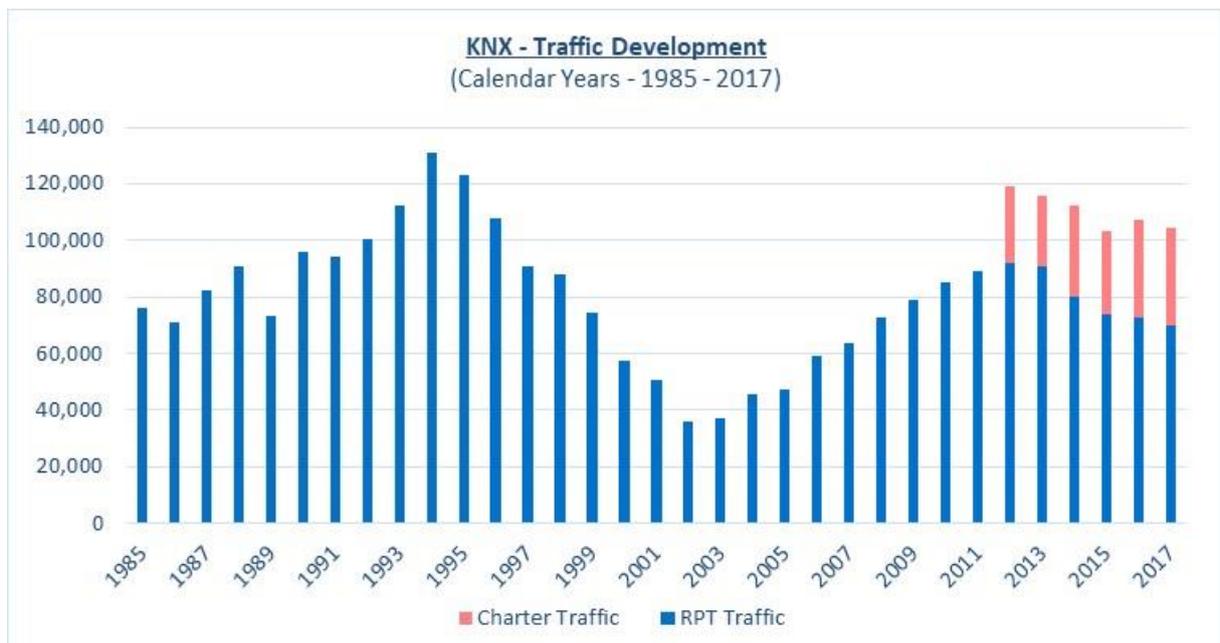
4. Aviation Status Quo

4.1. Traffic and Capacity Observations

Traffic development at KNX shows some interesting trends, clearly visible in Figure 20 below. High passenger throughput up to CY94 is followed by a collapse to less than one third in CY02 and CY03, apparently a result of Ansett first withdrawing services, then collapsing and, thereafter, Qantas discontinuing Bae146 operations. The decade starting in 2004 saw continuous traffic growth, undoubtedly helped by resources related traffic during the mining boom.

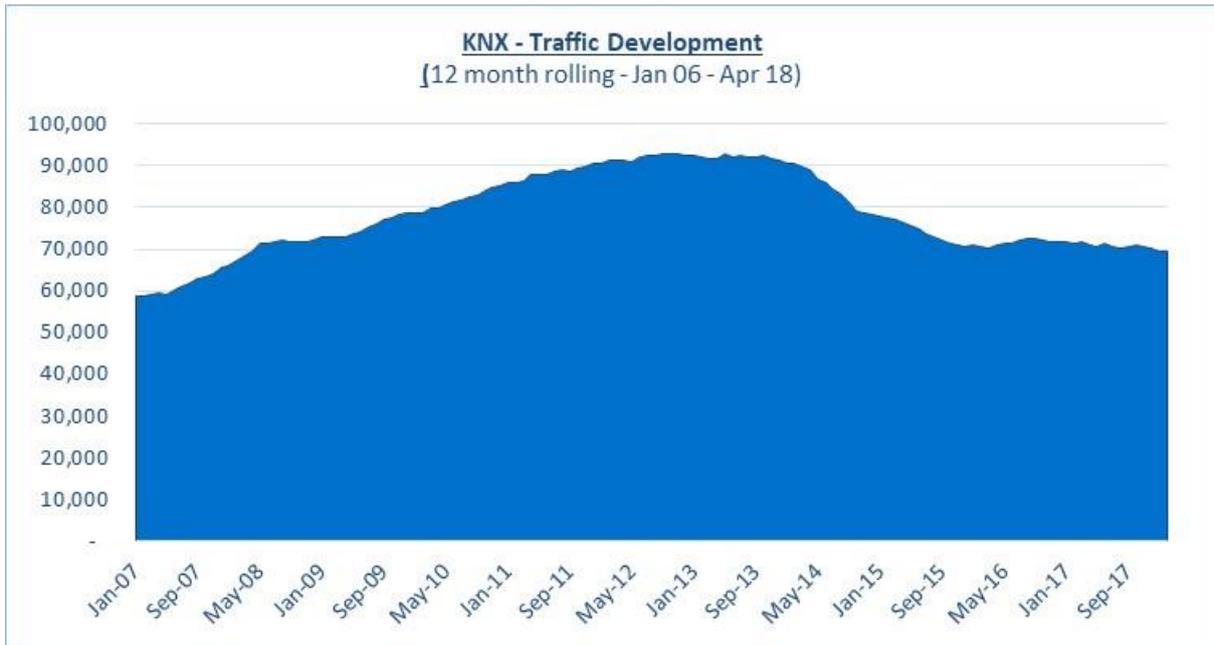
From CY12 onwards, BITRE publishes both RPT and charter traffic, which is signified in Figure 20 by a jump in total traffic during that year. After Virgin Australia (VA) acquired Skywest in 2013, route competition at KNX came to a halt, leading to the market duopoly and ultimately to virtual route monopolies described above. During CY17, RPT traffic at KNX stood at 70,000 passengers, less than what was achieved 30 years earlier. Including charter traffic, CY17 total traffic volumes stand at 104,600.

FIGURE 20: KNX PASSENGER DEVELOPMENT - ANNUAL



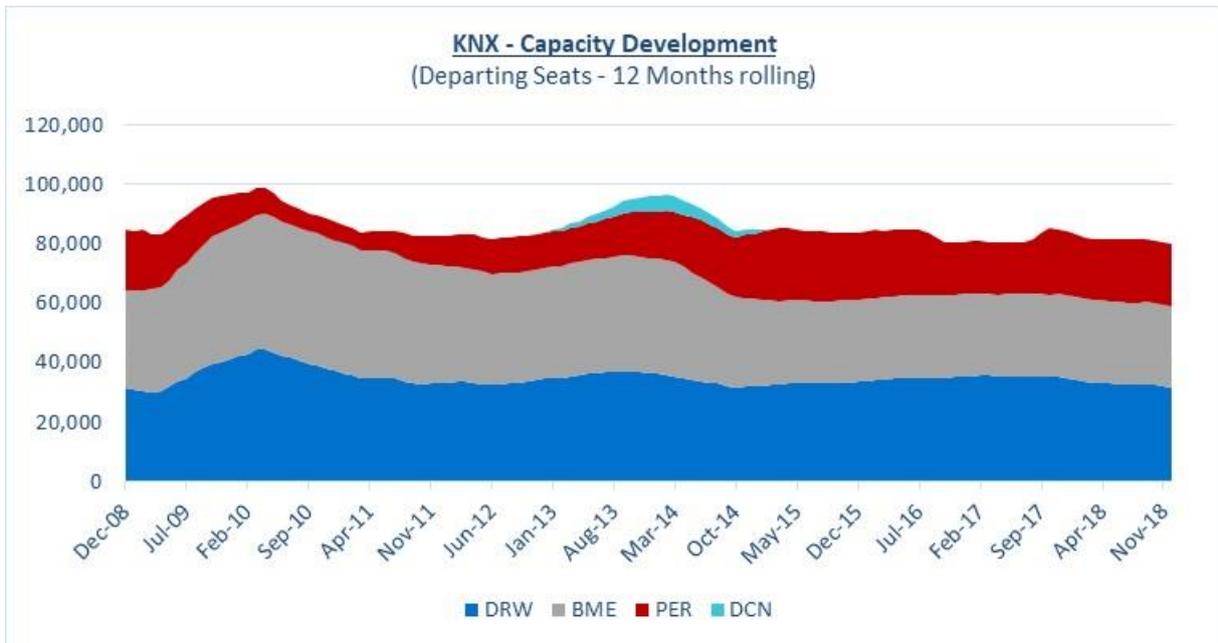
Analysing RPT traffic on a rolling month basis (Figure 21), shows the same trend of healthy growth up to mid 2013, followed by a fairly steep decline lasting until the third quarter of 2015 and levelling out at the around 70,000 passenger mark since then, triggered by a combination of a slow-down in economic activity (e.g. completion of Ord Scheme Stage 2) and the above-mentioned change in industry structure to the duopoly still in place today.

FIGURE 21: KNX PASSENGER DEVELOPMENT – 12 MONTHS ROLLING



Seat capacity development over the past decade has been sluggish, and, as traffic, has stagnated over the most recent past (Figure 22). KNX used to have services to both Derby Curtin (DCN) and Argyle Mine (GYL) in the past, however, both routes were insignificant in capacity terms and have not served local demand. Today’s route portfolio consists of PER, DRW and BME, all of which essentially operated as monopolies, which tends to lead to elevated airfares, usually at the expense of traffic growth.

FIGURE 22: KNX CAPACITY DEVELOPMENT



Comparing KNX with traffic development for Australia overall and other airports in WA (Figure 23), highlights that mining related, non-mining related, as well as both PER and BME have enjoyed stronger medium term (since 2000) growth trends than KNX. Whilst the set of comparison airports achieved 17 year compound annual growth rates (CAGR) of between 3.2% and 6.2%, KNX’s CAGR stands at 1.2%.

FIGURE 23: WA AIRPORT COMPARISON



As can be seen in Figures 24 and 25, passenger traffic at KNX is very seasonal with average and above average results achieved between April and October, during the dry season. KNX’s strongest traffic month, July, is 1.32 times the monthly average, whilst its weakest traffic months, January and February reach just 0.69 times the average.

FIGURE 24: KNX SEASONALITY – PASSENGERS PER MONTH

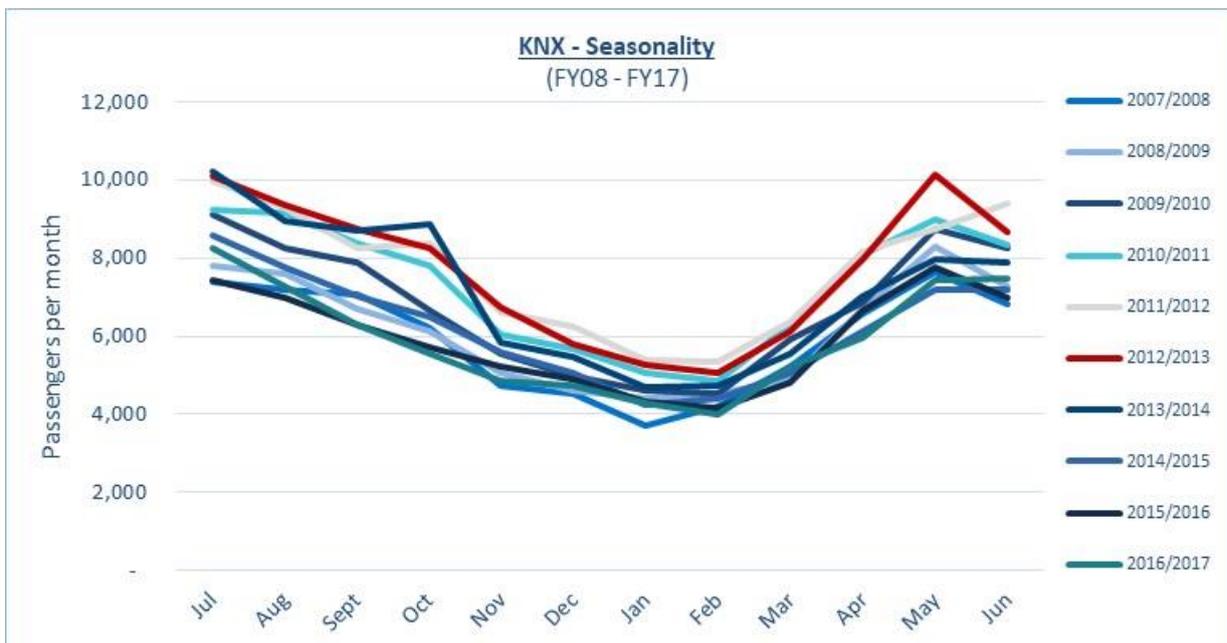
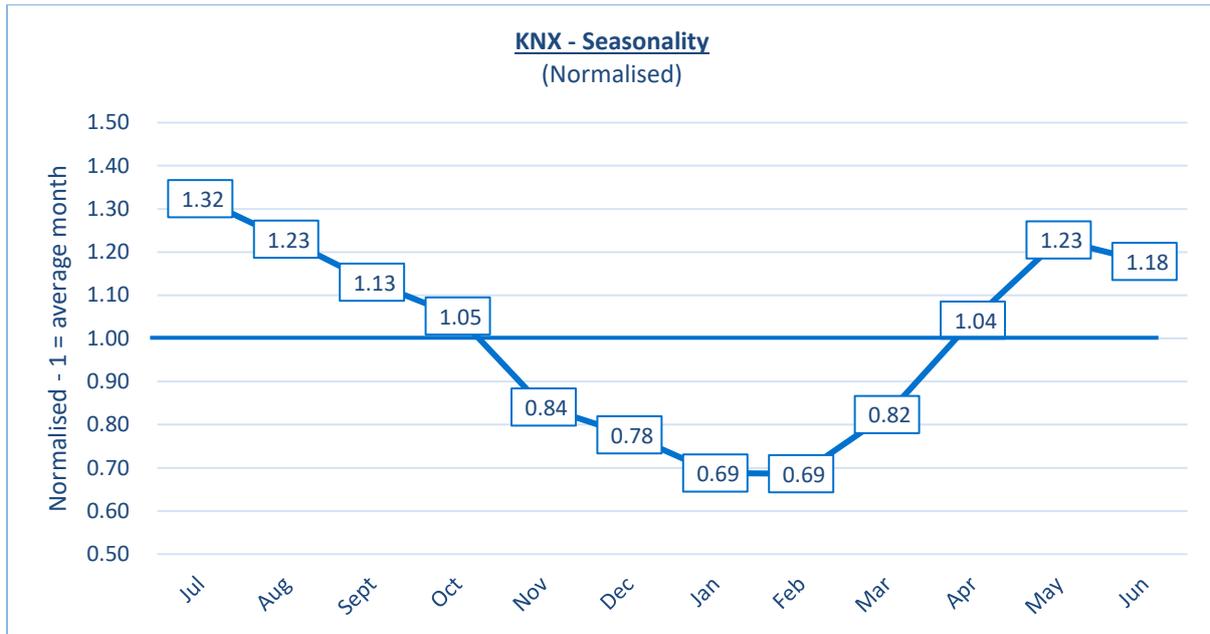
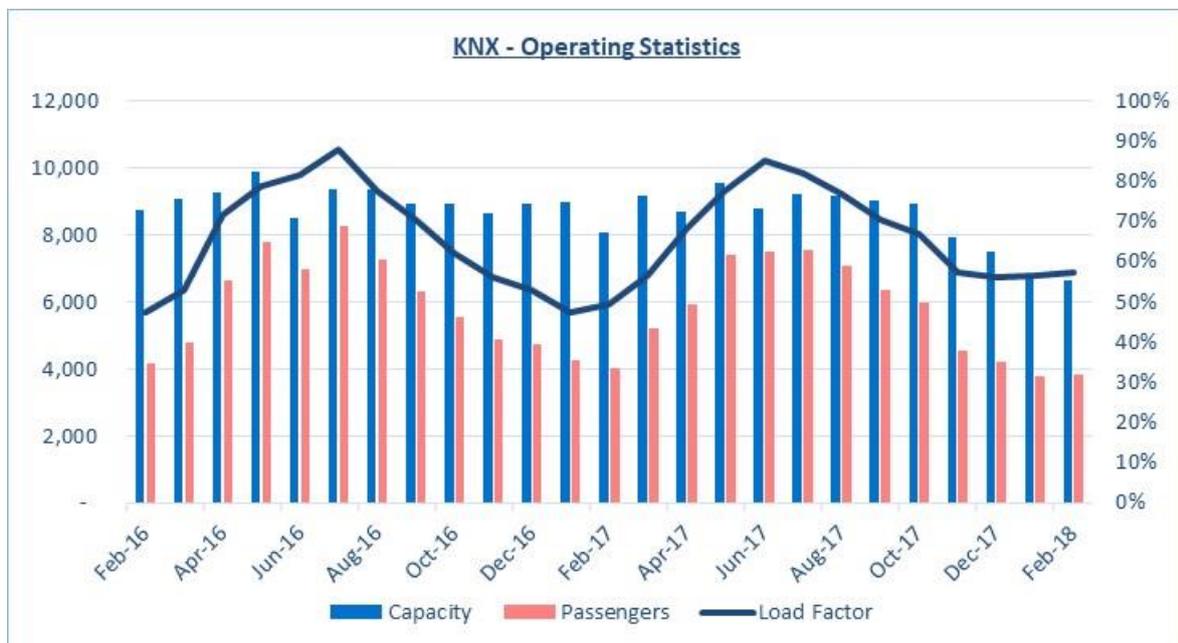


FIGURE 25: KNX SEASONALITY – NORMALISED



Seasonality effects are also visible when plotting passengers, capacity and resulting load factor results for the most recent two year period (Figure 26), showing loads in the 50% - 60% bracket during the low – wet – season, but reaching 80% and higher in the peak months around June, July and August (as Airtnorth operates most KNX capacity as DRW – KNX – BME – KNX – DRW, only 50% of Airtnorth capacity was allocated to KNX for these calculations).

FIGURE 26: KNX OPERATING STATISTICS



4.2. Demand Components

After reviewing operating statistics and information sourced from Tourism Research Australia (TRA), in particular the NVS and the IVS, KNX traffic was divided into three distinct segments: resident outbound, visitor inbound for non-leisure purposes (FIFO, business, VFR, other), as well as visitor inbound for leisure purposes.

Allocating CY17 RPT traffic of 70,038 passengers into these three segments produces the KNX traffic composition estimate as shown in Figure 27. As charter traffic is assumed to be of a local nature (to and from nearby airfields) it has been left out of this and the following calculations.

FIGURE 27: KNX TRAFFIC COMPOSITION CY17

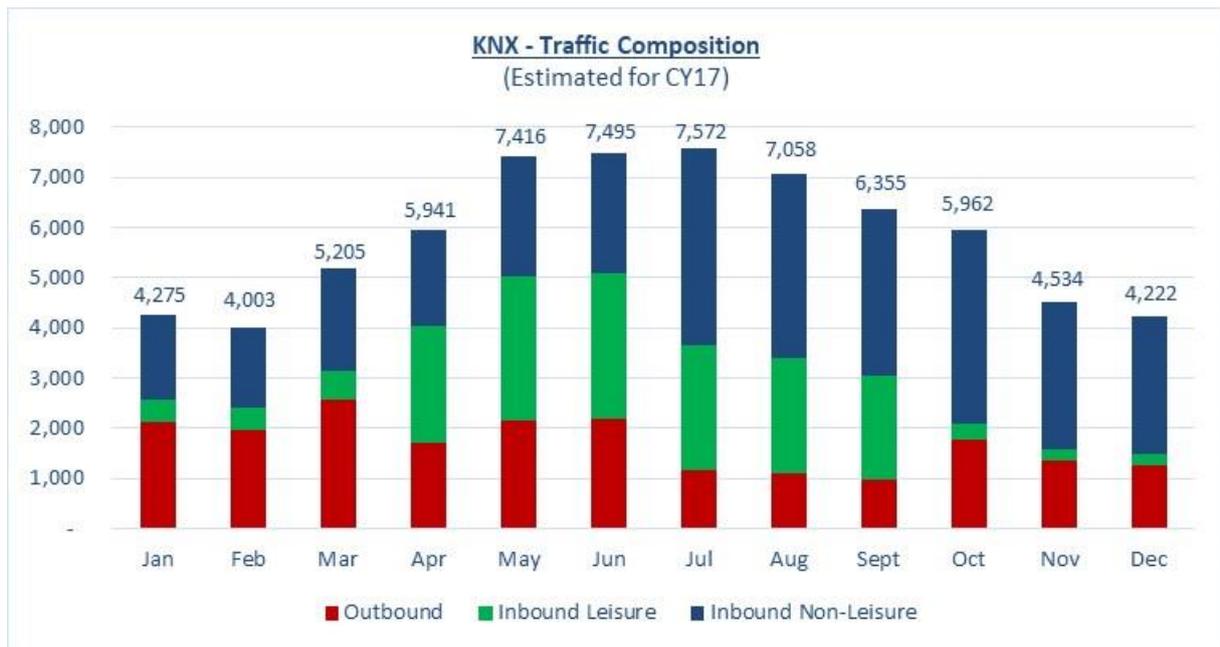


FIGURE 28: KNX SEGMENT SEASONALITY CY17

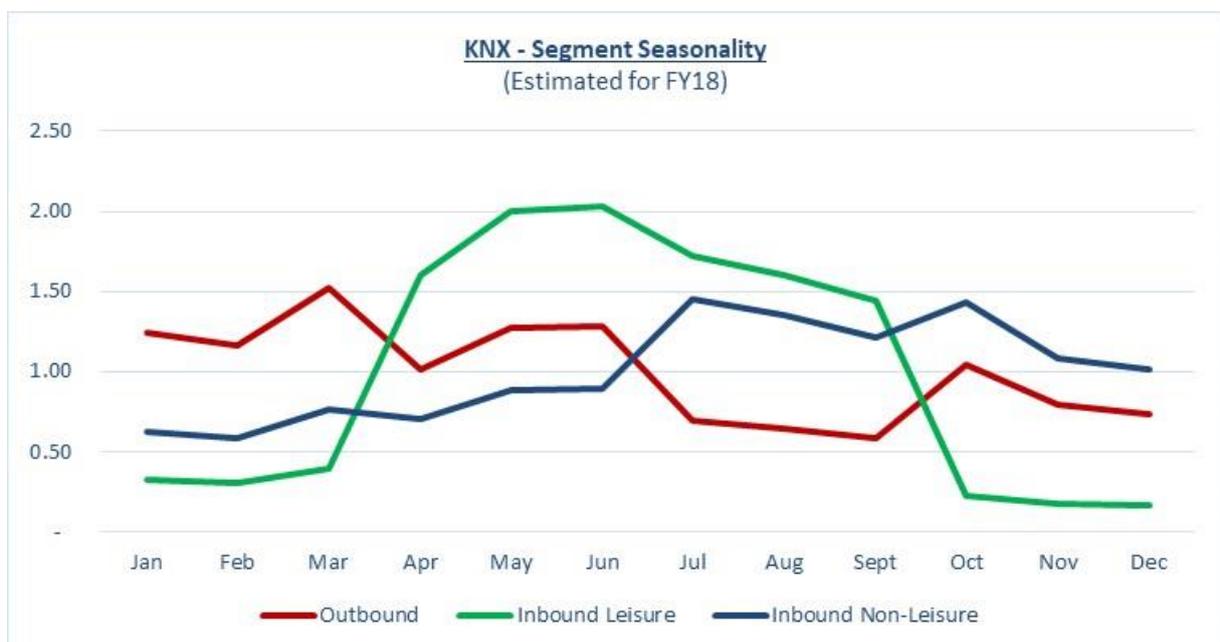


Figure 28 shows calculated seasonality patterns by passenger segment, highlighting that outbound demand is less seasonal but peaks in the rainy season, that inbound leisure demand shows the highest fluctuations throughout the year and that inbound non-leisure demand is somewhat concentrated during the second half of the year, thought to be influenced by general seasonality for inbound demand but also by inbound VFR patterns during the later part of the calendar year.

4.3. Demand Segments

4.3.1. Resident outbound demand

Resident outbound traffic during CY17 is estimated at around 20,000 passengers per annum, representing around 28% of the total. Calculating travel propensity (trips per resident per annum) produces the fairly high level of 1.32 (Australia average is 1.36, driven by above average propensity levels around capital cities and airports with high low-cost penetration). Insights from the on-site survey indicate that residents that do fly do so around 2.85 times per year, suggesting that just around 50% of the local population use air services.

4.3.2. Visitor inbound non-leisure demand

Visitor non-leisure traffic is estimated at around 35,000 passengers per annum, representing around 50% of the total and is the largest of all segments.

Inbound non-leisure demand is thought to be driven by general economic activity in KNX’s catchment area, which, in turn impacts on the number of people employed in the area but residing somewhere else, driving Fly-in / Fly-out (FIFO) demand. Figure 29 highlights that between 2011 and 2016, the larger catchment area lost around 833 jobs. 372 of these were formally, in 2011, held by locals, another 322 formally held by intra-state residents and 139 formally held by inter-state residents. In summary, between 2011 and 2016, FIFO worker numbers reduced by 461 (322 intra-state + 139 inter-state).

FIGURE 29: SWEK AND HALLS CREEK EMPLOYMENT DATA

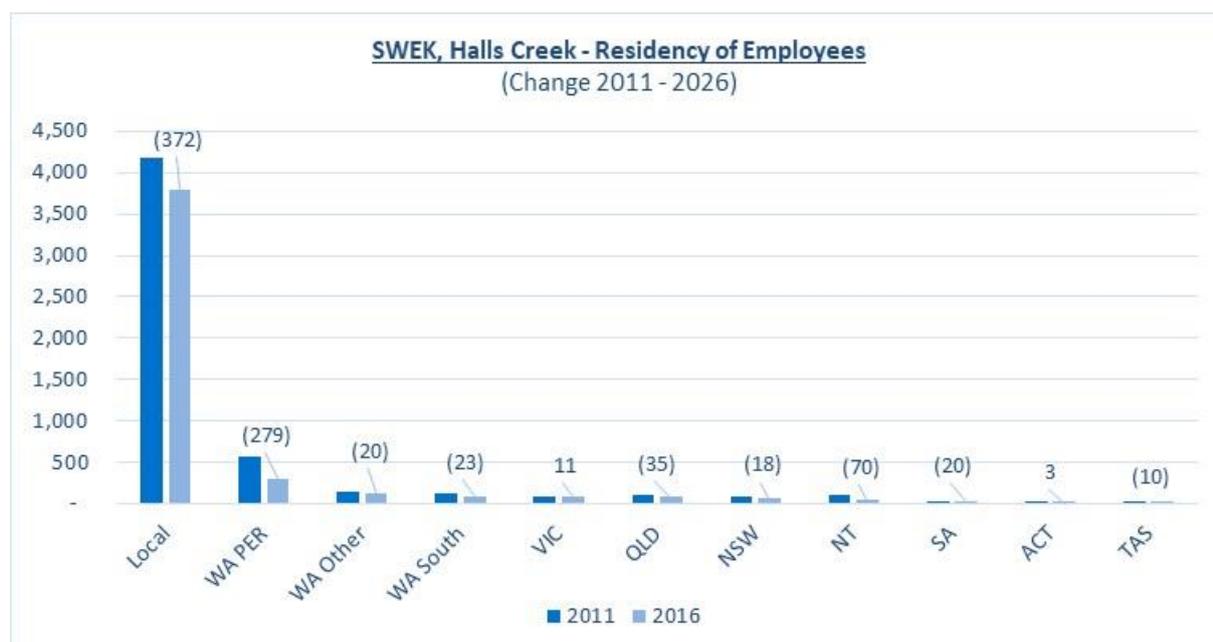


Figure 30 adds another dimension to the above, firstly listing current (2016) employment by industry and, secondly, by cross-referencing residency with industry of employment. This analysis highlights that most intra- and inter-state job losses occurred in the mining and construction industries, confirming that the end of the mining construction boom had a distinct impact on FIFO travel patterns. Another insight is that industry sectors that have been growing between 2011 and 2016 (e.g. agriculture and arts & recreation) tend to source employment locally, so do not add significantly to air travel demand.

FIGURE 30: SWEK AND HALLS CREEK EMPLOYMENT STRUCTURE AND CHANGES



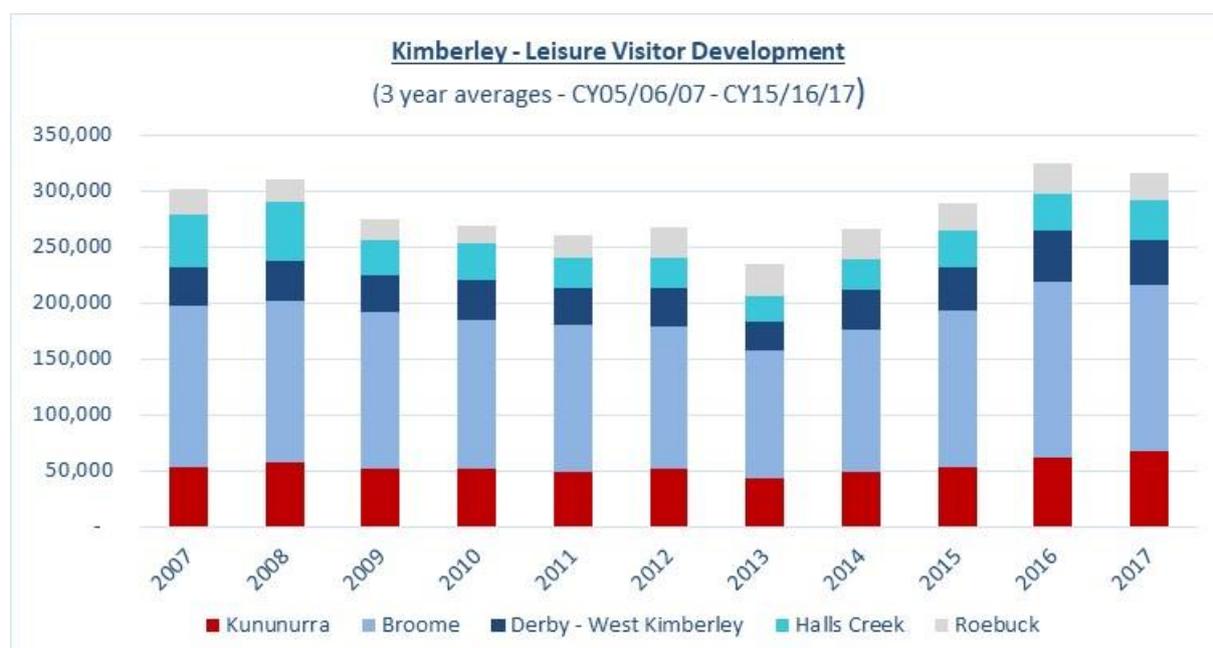
Assuming the 461 non-resident employees rotated in and out of the area in typical FIFO shift patterns (e.g. 3 weeks on / 1 week off), they would have “produced” in excess of 11,000 passenger movements at KNX, which would explain more than half of the difference between 2012 RPT traffic generation of 92,000 and 2016 traffic generation of 73,000.

Assuming the remaining non-local employment base in CY16 (around 700 employees) travelled at similar shift patterns (e.g. 3 weeks on / 1 week off), allows the categorisation of around 17,000 of the current 35,000 visitor non-leisure passenger movements as FIFO related, with the remaining 18,000 movements driven by visitors who aren't travelling for leisure purposes and can't be qualified as FIFOs.

4.3.3. Visitor inbound leisure demand

Leisure visitation not only to the Shire but to the Kimberley overall has been growing steadily in the last decade. As shown in Figure 31, the Kimberley welcomed around 280,000 leisure visitors during CY17, with the majority, around 70%, making their way to Broome and/or Kununurra. Rapid leisure visitation growth since CY13 has likely to do with the decrease in FIFO patterns to the area, as flight and accommodation capacity is more easily secured by holiday makers.

FIGURE 31: KIMBERLEY LEISURE VISITOR DEVELOPMENT



Concentrating on visitation to the Kununurra area (Figure 32), shows a similar development pattern; at almost 60,000 visitors per annum (calculated over a 3 year average spanning CY15, CY16, and CY17, due to the low sample size in the NVS), the Kununurra region now welcomes more leisure visitors than at any other time during the last decade.

Compound annual leisure growth rates have been calculated using both CY07 and CY13 as base years resulting in a CAGR of 2.1% for the decade spanning period, but 11.3%, so around five times higher, for the most recent five year period.

Assessing the likelihood of continuation of one or the other growth rate will be critical in the calculation of future visitor leisure demand and how many of these would use KNX as port of entry and/or exit to the Kimberley.

FIGURE 32: KUNUNURRA LEISURE VISITOR DEVELOPMENT

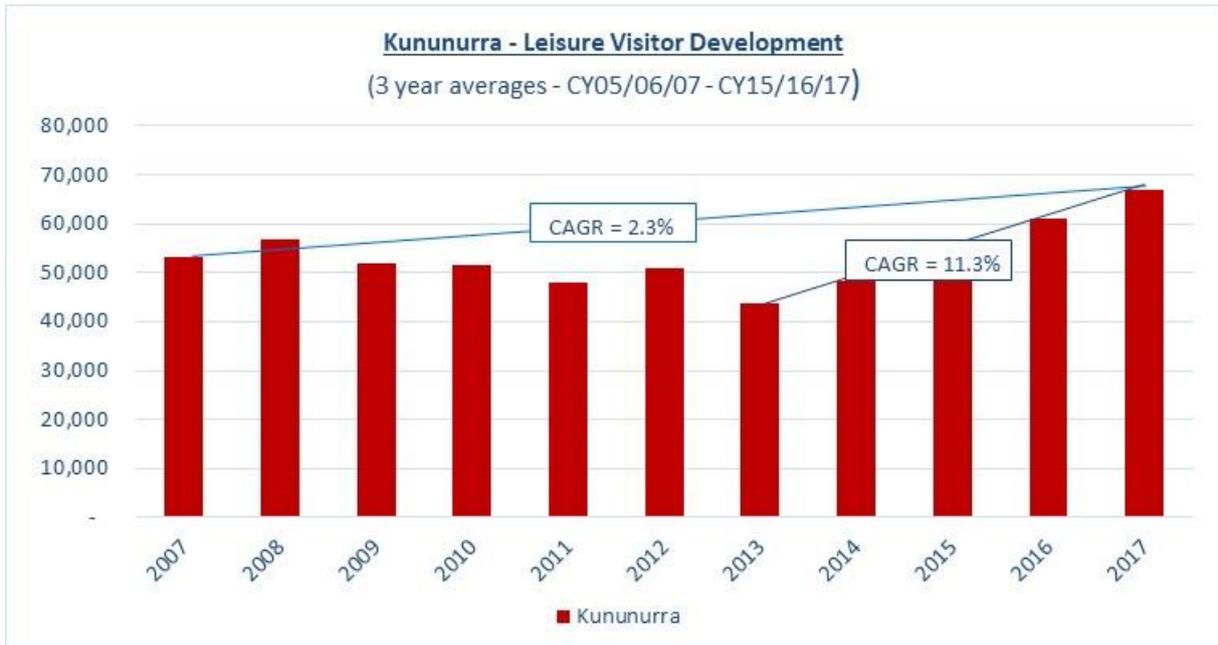
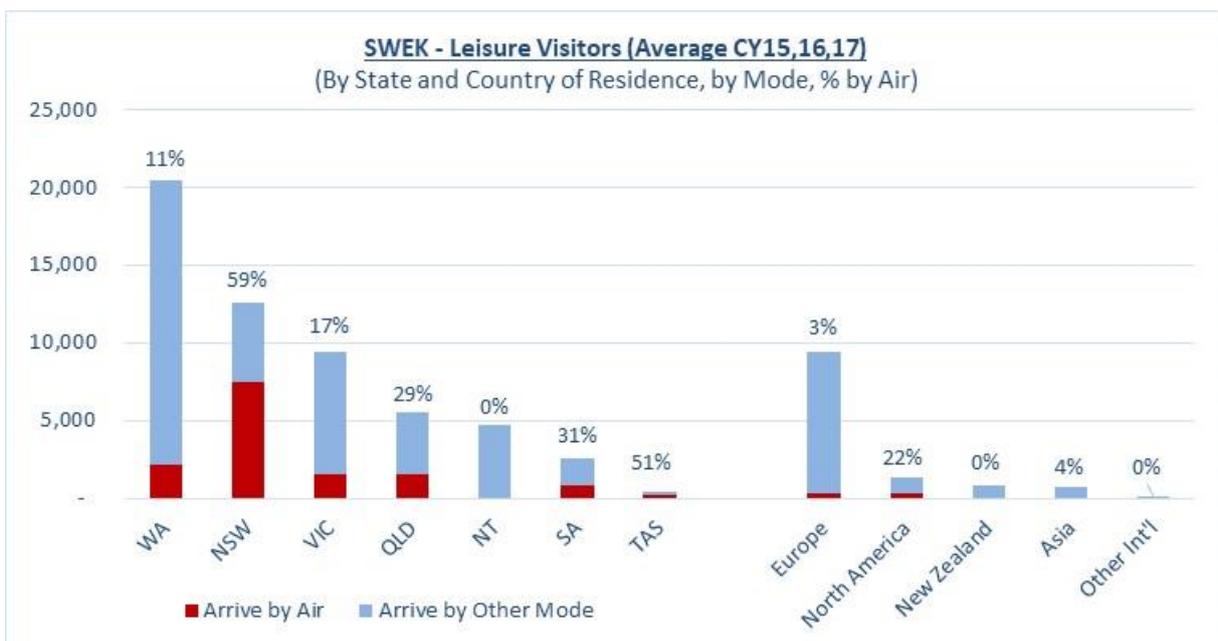


Figure 33 shows the results of a mode of transport analysis, highlighting that around 25% of domestic leisure visitors travel to and from the Kimberley area by air, whilst only 5% of international visitors choose that travel mode. Focussing on the East Kimberley and the use of KNX, and cross-referencing with findings from the on-site survey, it is estimated that arrival by air of that segment reduces to just 12%. Current holiday visitation is skewed towards an older than average demographic segment, with around 55% of all visitors to the area being aged 50 and over. It is fair to assume that a significant share of that age group is retired and benefit from little time constraints, so are able to travel to and from the Kimberley by their own car, a rental car or a caravan, so are not prime targets for additional, improved or more affordable air travel.

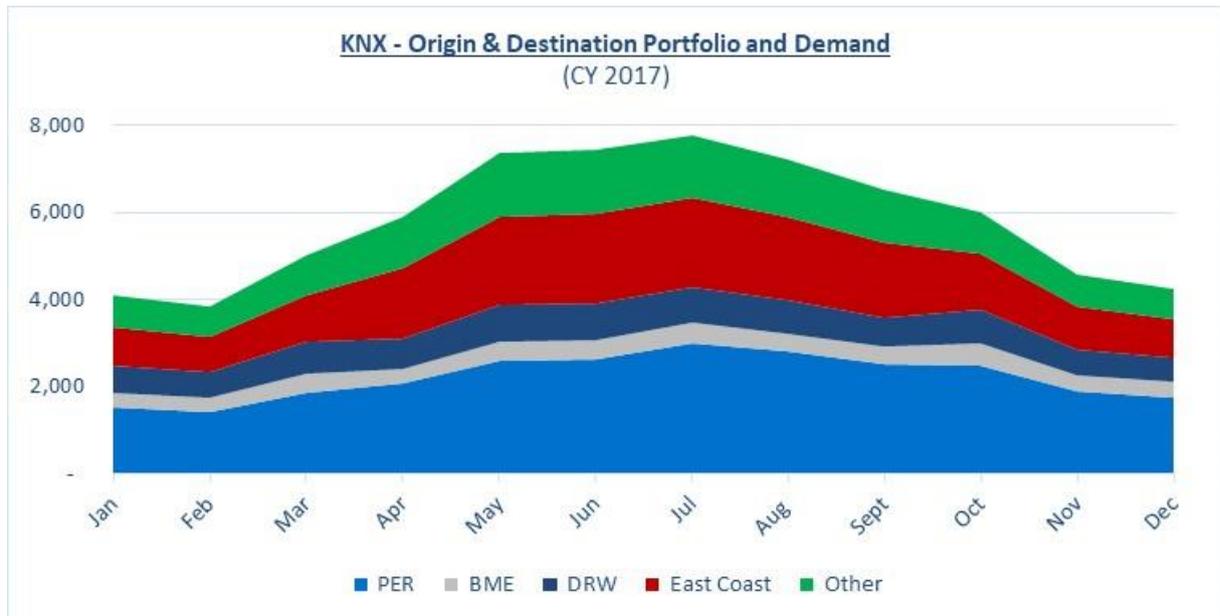
FIGURE 33: KUNUNURRA LEISURE VISITORS BY MODE OF TRANSPORT



4.4. Current demand structure

Combining demand segment sizes with segment specific O&D portfolios as gleaned from the on-site survey (resident outbound and FIFO) and NVS / IVS (visitor inbound leisure and non-leisure) allows the construction of a O&D destination portfolio by month for KNX. Growing this over time will become the main input to the development of an aviation strategy, which is summarised in Section 6.

FIGURE 34: KUNUNURRA AIRPORT O&D PORTFOLIO



5. Demand Forecast

Demand forecasts were produced by demand segment, described above, covering the 20 year period from 2017 (base year) to 2027, and split into “medium”, “high” and “low”.

Through desktop research and stakeholder interviews we understand that the following are key economic drivers for the Shire so it appears more appropriate to discuss them upfront as they would impact most if not all demand segments:

- **Argyle Diamond Mine:** The consensus among stakeholders is that the Argyle Diamond Mine will be closed by 2021. Whilst the mine has a workforce of around 500 employees, two thirds of these are FIFO’s thought to mostly fly in and out the mine’s own airport. A third are local employees from the Halls Creek, Kununurra and Wyndham area, so the closing of the mine is expected to have a slight negative impact on local employment options.
- **Other Mining:** Whilst the area is known for copper, graphite, and nickel resources, activity in this field is almost entirely dependent on world resources price developments. Whilst prices for nickel have improved by more than 50% since the Savannah mine was closed in 2017, a reliable forecast of world market prices, ensuing mining activity in the Shire and impact on FIFO workforce is seen as beyond the scope of this exercise.
- **Ord Irrigation Scheme:** Expanding the scheme into Ord Stage 2 which opened in 2013 has opened around 7,000 hectares of incremental farmland producing around 70 jobs, most of them occupied by locals. Ord Stage 3 is expected to materialise over the next 10 years, opening a similar area as new farmland, again, resulting in some 70 local jobs. Whilst there is some potential for international airfreight development, this appears too hypothetical at the moment to be made part of a runway extension business case.
- **Project Sea Dragon:** This new project, designed to produce high quality prawns on a year-round basis for the export market, is expected to be operational from the end of the decade. Whilst most of the project’s facilities will be based in the Northern Territory, Kununurra is earmarked as the home for workers in nearby N.T. and the location for a processing plant, dealing with freezing, packaging and dispatching product to the nearby port of Wyndham. It is estimated that this will create 120 direct local jobs in Kununurra over the next 5 years. Again, as stated in relation to the Ord Irrigation Scheme, whilst there is some potential for international airfreight development, this appears too hypothetical at the moment to be made part of a runway extension business case.
- **Tourism:** Over the recent past, the Kimberley in general, as well as the East Kimberley region and Kununurra in particular, have developed well as tourism destinations. Kununurra is the gateway to unique attractions such as the Bungle Bungle Range, Lake Argyle, Ord River, Mitchell Falls, etc. many of which are used as iconic imagery by Tourism Australia that brands the Australia’s North West as “one of the last true wilderness areas on Earth”. Stakeholders seem reasonable happy with accommodation options as well as tourism product and agree that access represents the biggest constraint to further growth. For the time being, just 21% of all holiday visitors get to and from the Kimberley area by air, while the remainder visit the North-Eastern tip of WA as part of a wider and much longer tour, at times ranging as far as driving the whole distance between Darwin and Perth. Travel patterns through the area find their expression in visitor age brackets, with 54% of domestic visitors being older than 50 years and 47% of international visitors younger than 34 years, suggesting that the average holidaymaker in the area benefits from little time constraints. To make the East Kimberley region more attractive for other visitor groups, especially the segment of Australian East Coast based professionals between 30 and 60 years old, requires more attractive access options

than the currently available 12 and more hour one-stop, \$1,000 and more one way flight between Melbourne, Sydney, Brisbane and Kununurra. Stakeholders have pointed out that tourism operators find themselves facing a “chicken and egg” situation whereby airport infrastructure development (i.e. extending the runway to enable the accommodation of Code 4C aircraft and securing non-stop flights to the East Coast as well as more attractively priced flights to PER) is in a dynamic relationship to tourism product and accommodation development. As pointed out above, there appears to be consensus that the East Kimberley could continue recent tourism growth rates but that sustainability thereof depends heavily on solving current access problems.

The following section describes how demand drivers were developed for each segment.

5.1. Forecast by Segment

5.1.1. Resident outbound

Resident outbound demand is driven by population size and propensity to travel, where the latter is thought to be a reflection of economic activity, individual wealth, as well as affordability of air travel. To drive forecasts for this demand segment we interrogated “Medium term population forecasts for Western Australia 2014 – 2026”, published by Western Australia Tomorrow and assessed the likelihood of propensity changes over time.

Population growth will, to a good degree, depend on employment opportunities in the Kununurra area, where a differentiation has to be made between employment growth driven by population growth (e.g. health services, education services, financial services, etc.) and employment that draws incremental residents to the area outside these more service oriented industries.

Mining, construction, agriculture, aquaculture, as well as tourism are the main sectors driving incremental employment opportunities, or the opposite thereof as was the case when around 800 jobs in mining and construction were lost in the area following the end of the mining construction boom.

Economic developments discussed above point to a slight increase of jobs as a combination of losses from the closing of the Argyle Mine and the gains from extending the Ord Irrigation Scheme, opening Project Sea Dragon, as well as accommodating further tourism growth.

As per Section 4.3.1., at 1.32 trips per annum, propensity to travel within the catchment area is high compared to the Australian average; however, findings from the On-Site Survey suggest that this average is driven by a relatively small number of residents who travel very often and that many residents don't travel by air at all. Propensity levels of up to 1.52 in the “high” forecast scenario are meant to capture the expected increase of travel by current non-travellers should capacity to and from KNX increase and – more importantly – air fares reduce.

TABLE 1: DEMAND DRIVERS AND VALUES FOR RESIDENT OUTBOUND SEGMENT

	Medium	High	Low
Population Growth			
CY18 – CY27	1.6% pA	2.7% pA	0.3% pA
CY27 – CY38	1.0% pA	2.7% pA	0.3% pA
Propensity to Fly			
CY18 – CY27	1.33 – 1.40	1.33 – 1.42	1.33 – 1.37
CY27 – CY38	1.40 – 1.47	1.42 – 1.52	1.37 – 1.40

5.1.2. Visitor inbound non-leisure - FIFO

FIFO demand is driven by industries requiring employees in the region that can't be provided by the local community, be it for reasons of the amount of labour needed or for specific skill sets required. As elaborated above, Mining and Construction are the two industry sectors producing the most need for FIFO workers, interestingly followed closely by Accommodation and Food Services.

As pointed out in section 4.3.2., the East Kimberley has lost around 500 FIFO workers between 2011 and 2016 as a direct consequence of the end of the mining construction boom and the completion of Ord Irrigation Stage 2. All things being equal, it is assumed that the new level of around 700 FIFO's represents a "steady state" with some upside potential from the opening of the Project Sea Dragon processing facility and the accommodation of further tourism growth.

TABLE 2: DEMAND DRIVERS AND VALUES FOR VISITOR INBOUND NON-LEISURE – FIFO SEGMENT

	Medium	High	Low
FIFO Workforce Growth			
CY18 – CY27	1.0% pA	2.0% pA	0.0% pA
CY27 – CY38	1.0% pA	2.0% pA	0.0% pA
FIFO Travel Patterns			
CY18 – CY27	24 flights pA	24 flights pA	24 flights pA
CY27 – CY38	24 flights pA	24 flights pA	24 flights pA

5.1.3. Visitor inbound non-leisure – non-FIFO

Inbound non-leisure, non-FIFO demand is driven by general changes to gross regional product, leading in growth years to more, in decline years to less business-related interaction with non-locals, however, not requiring non-locals to stay for extended time periods.

It is estimated that this sector will show growth patterns not dissimilar to resident outbound which, as per above, is expected to benefit from cautiously positive aspects around key economic developments such as the extension of the Ord Irrigation Scheme and the opening of the Sea Dragon Project.

TABLE 3: DEMAND DRIVERS AND VALUES FOR VISITOR INBOUND NON-LEISURE – NON-FIFO SEGMENT

	Medium	High	Low
Non-Leisure Growth			
CY18 – CY27	1.5% pA	2.5% pA	0.0% pA
CY27 – CY38	1.0% pA	2.5% pA	0.0% pA
Choice of Mode: Air			
CY18 – CY27	19% - 29%	19% - 29%	19% - 19%
CY27 – CY38	29% - 34%	29% - 39%	19% - 19%

5.1.4. Visitor inbound leisure

Inbound leisure demand is driven by the attractiveness and affordability of the tourism region as well as by access considerations. As such, this segment is more difficult to forecast as growth stands in a dynamic relationship with access options and pricing.

As discussed above, long term and short term inbound leisure growth CAGR's are quite different ranging from 2.3% (long term) to 11.3% (short term), mathematically averaging at 6.8%. It has been decided to take these values as starting positions for respective forecasts, with growth rates reducing slightly over time. It should be stated that both medium and high leisure visitation forecasts would require an improvement in access by air.

TABLE 4: DEMAND DRIVERS AND VALUES FOR VISITOR INBOUND LEISURE SEGMENT

	Medium	High	Low
Leisure Growth			
CY18 – CY27	6.8% - 5.4% pA	11.3% - 6.8% pA	2.3% - 2.1% pA
CY27 – CY38	5.4% - 4.2% pA	6.8% - 4.2% pA	2.1% - 1.9% pA
Choice of Mode: Air			
CY18 – CY27	13% - 19%	13% - 22%	12% - 17%
CY27 – CY38	19% - 24%	22% - 32%	17% - 22%

5.2. Combined Annual Forecasts

TABLE 5: ANNUAL DEMAND FORECASTS BY DEMAND SEGMENT

MEDIUM	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25	CY26	CY27	CY28	CY29	CY30	CY31	CY32	CY33	CY34	CY35	CY36	CY37	CAGR (17-27)	CAGR (27-37)
Outbound	20,380	20,809	21,246	21,691	22,146	22,609	23,081	23,562	24,053	24,554	24,928	25,307	25,692	26,081	26,476	26,876	27,282	27,693	28,109	28,531	28,959	2.0%	1.5%
Inb. Leisure	17,185	19,440	21,887	24,536	27,393	30,468	33,769	37,303	41,078	45,101	49,379	53,275	57,372	61,674	66,185	70,906	75,841	80,992	86,359	91,946	97,753	11.1%	7.1%
FIFO	16,800	16,968	17,138	17,309	17,482	17,657	17,834	18,012	18,192	18,374	18,558	18,743	18,931	19,120	19,311	19,504	19,699	19,896	20,095	20,296	20,499	1.0%	1.0%
Inb. Non-Leisure	15,673	16,862	18,082	19,336	20,623	21,944	23,300	24,693	26,121	27,587	28,948	29,785	30,636	31,501	32,381	33,274	34,183	35,106	36,045	36,998	37,967	6.3%	2.7%
Total	70,038	74,078	78,353	82,872	87,644	92,678	97,984	103,570	109,444	115,615	121,812	127,110	132,630	138,377	144,353	150,561	157,005	163,687	170,608	177,772	185,178	5.7%	4.3%
Y-O-Y Growth		5.8%	5.8%	5.8%	5.8%	5.7%	5.7%	5.7%	5.7%	5.6%	5.4%	4.3%	4.2%	4.2%	4.2%								
HIGH	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25	CY26	CY27	CY28	CY29	CY30	CY31	CY32	CY33	CY34	CY35	CY36	CY37	CAGR (17-27)	CAGR (27-37)
Outbound	20,380	21,082	21,808	22,557	23,331	24,130	24,955	25,807	26,687	27,596	28,534	29,503	30,503	31,536	32,603	33,704	34,840	36,014	37,226	38,476	39,767	3.4%	3.4%
Inb. Leisure	17,185	20,636	24,538	28,910	33,770	39,125	44,977	51,319	58,135	65,397	73,067	81,097	89,425	97,982	106,686	115,966	125,747	136,034	146,837	158,162	170,014	15.6%	8.8%
FIFO	16,800	17,136	17,479	17,828	18,185	18,549	18,920	19,298	19,684	20,078	20,479	20,889	21,306	21,733	22,167	22,611	23,063	23,524	23,995	24,474	24,964	2.0%	2.0%
Inb. Non-Leisure	15,673	17,028	18,440	19,913	21,448	23,047	24,712	26,447	28,252	30,132	32,087	34,122	36,239	38,439	40,728	43,106	45,578	48,147	50,816	53,588	56,467	7.4%	5.8%
Total	70,038	75,883	82,265	89,209	96,733	104,850	113,564	122,871	132,758	143,202	154,168	165,610	177,474	189,690	202,183	215,387	229,228	243,720	258,873	274,701	291,213	8.2%	6.6%
Y-O-Y Growth		8.3%	8.4%	8.4%	8.4%	8.4%	8.3%	8.2%	8.0%	7.9%	7.7%	7.4%	7.2%	6.9%	6.6%	6.5%	6.4%	6.3%	6.2%	6.1%	6.0%		
LOW	CY17	CY18	CY19	CY20	CY21	CY22	CY23	CY24	CY25	CY26	CY27	CY28	CY29	CY30	CY31	CY32	CY33	CY34	CY35	CY36	CY37	CAGR (17-27)	CAGR (27-37)
Outbound	20,380	20,511	20,643	20,776	20,909	21,042	21,177	21,311	21,447	21,583	21,719	21,818	21,918	22,017	22,117	22,218	22,319	22,420	22,522	22,624	22,726	0.6%	0.5%
Inb. Leisure	17,185	18,274	19,400	20,562	21,763	23,002	24,280	25,598	26,955	28,353	29,791	31,272	32,794	34,359	35,967	37,618	39,313	41,053	42,837	44,667	46,542	5.7%	4.6%
FIFO	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	16,800	0.0%	0.0%
Inb. Non-Leisure	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	15,673	0.0%	0.0%
Total	70,038	71,258	72,516	73,811	75,145	76,518	77,930	79,382	80,875	82,409	83,984	85,563	87,185	88,849	90,557	92,309	94,105	95,946	97,832	99,764	101,742	1.8%	1.9%
Y-O-Y Growth		1.7%	1.8%	1.8%	1.8%	1.8%	1.8%	1.9%	2.0%	2.0%	2.0%	2.0%											

6. Aviation Strategy

6.1. General Considerations

The analysis presented so far allows the following conclusions:

- Inbound and outbound demand levels are higher than current passenger carriage suggests;
- Capacity constraints, leading to an elevated air fare environment, are the main reasons for demand spill;
- Even though DRW and BME currently receive more capacity, PER is the largest O&D market to and from KNX;
- The limited destination portfolio forces significant connect traffic through DRW, and even BME;
- KNX's O&D portfolio is more diverse than the current aviation network suggests;
- The East Coast overall accounts for around one quarter of traffic to and from KNX;
- Demand composition at KNX is fairly complex, indicating the need to create separate forecasts for the key demand segments; and
- The medium demand forecast suggests traffic CAGR of 5.6% between 2017 and 2027, and 4.2% between 2027 and 2037.

6.2. Aircraft Considerations

Another very important aspect in considering aviation business development options for KNX relates to future aircraft availability. Tables 6 presents a summary of Australian carriers and respective current and currently ordered Code 3C and Code 4C jet aircraft / aircraft families. In excess of 80% of relevant aircraft types are either Boeing B737 / MAX variants or Airbus A320 / NEO variants. Focussing on aircraft types currently used at KNX, there are 50 Fokker 100's and only 5 Embraer 170's in use by Australian carriers.

TABLE 6: CODE 3C AND CODE 4C JET FLEETS BY AUSTRALIAN CARRIERS (JUNE 2018) – FLEET COUNT

	B737	MAX*	A320	NEO*	F100	B717	E170	F28	Total
Qantas Group	71		2		17	20			110
Virgin Group	82	40*	3		13				138
Jetstar			60	99*					159
Alliance Airlines					18			9	27
Tigerair	3		12						15
Airnorth							5		5
Skippers Aviation					2				2
Grand Total	156	40	77	99	50	20	5	9	456

* Current aircraft orders for B737-MAX and A320-NEO

Source: CAPA Fleets and CASA's aircraft registry

Determining the average age of the types shown in the table highlights that two out of the three Code 3C aircraft fleets (F100, F28) are the oldest in the country, with F100 currently averaging 26.1 years and the F28 averaging 22.7 years. It should be added that these two types are long out of production meaning these fleets can not be “rejuvenated” by replacing older aircraft with younger ones. Consequently, within the coming 4 years, the average age of Australia’s F100 fleet will be in excess of 30 years and it must be assumed as more likely than not that this type will be retired within the next 10 years.

With an average age of just 10.9 years, the other Code 3C aircraft type, the Embraer 170, currently operated by Airnorth, is relatively young, so has sufficient cycles and years left to be seen as medium to long term solution for KNX. It should be noted, however, that there are no published plans by Airnorth to add new components to their fleet. In summary, of the two types currently used at KNX, only one can be considered to serve beyond the coming 10 year period.

Again, and as clearly visible from Tables 6 and 7, Australia’s aviation industry very much focuses on Code 4C aircraft types as current fleet, as well as for future replacement and growth purposes.

Consequently, being limited to the operation of Code 3C aircraft types, causes significant strategic disadvantages. Firstly, over the short to medium term, it is expected that only one Code 3C operator, Airnorth, remains, which would result in further market concentration, removing the last bit of competition from KNX’s passenger market, likely leading to higher fares and traffic stagnation. Secondly, over the medium to long term, the vital importance of aviation to the East Kimberley region dictates that the airport is designed along the most commonly used aircraft type rather than along a type that must be regarded as exception in Australia’s narrow-body jet fleet.

TABLE 7: CODE 3C AND CODE 4C JET FLEETS BY AUSTRALIAN CARRIERS (JUNE 2018) – AVERAGE AGE

	B737	MAX*	A320	NEO*	F100	B717	E170	F28	Total
Qantas Group	10.5		13.4		25.1	16.4			16.3
Virgin Group	7.8	n/a	17.4		26.3				17.2
Jetstar			8.9	n/a					8.9
Alliance Airlines					27.2			22.7	25.0
Tigerair	13.8		8.7						11.2
Airnorth							10.9		10.9
Skippers Aviation					25.8				25.8
Grand Total	10.7	n/a	12.1	n/a	26.1	16.4	10.9	22.7	16.5

* Current aircraft orders for B737-MAX and A320-NEO

Source: CAPA Fleets and CASA’s aircraft registry

6.3. Suggested Aviation Network for KNX for Selected Years

This section develops specific network development objectives for KNX for the coming 10 year period. These objectives are based on the medium forecast presented above which has been apportioned into demand by O&D (via segment specific O&D patterns) and by month.

In producing network development and aircraft allocation suggestions for CY20, CY22, CY24, CY26, and CY28, we applied the following parameters:

- Frequency is more important than aircraft size up-gauges; in other words, it is more important to build up daily or, at least, week-daily frequencies to the key destinations of DRW and PER before suggesting the use of larger aircraft;
- As long as aircraft types remain unchanged, the market is not assumed to benefit from price stimulation effects;
- When replacing Code 3C with Code 4C aircraft, unit cost savings through use of larger aircraft are partially passed on to passengers; to calculate that we have assumed a 25% price stimulation effect;
- When introducing new non-stop flights, we assume a service stimulation effect of 25% for that market bundle;
- No frequency increases or aircraft up-gauges are recommended unless route load factor is in excess of 75%;
- Network development suggestions are created on a month by month basis, showing the optimal aircraft deployment by route and by month which will create what may be seen as counter-intuitive frequency shifts (e.g. CY22 suggestions for KNX-DRW: 9 departures per week in Code 3C aircraft in June, and 5 departures per week in Code 4C aircraft in July); and
- Markets are in a dynamic relationship with one another, so connections via DRW reduce when East Coast services operate, and increase when East Coast services cease.

6.4. Summary Findings

Over the coming decade, general traffic growth and O&D specific demand is thought to be sufficient to justify the operation of Code 4C aircraft on both existing markets and what looks like a commercially viable additional market to Australia's East Coast. Specific demand patterns and the shorter distance point to BNE as the front-runner among East Coast markets.

Moreover, currently used Code 3C aircraft types do not appear to represent medium to long term options for use at KNX. The average age of F100's used in Australia is 26.1 years, the type is long out of production making it likely that the F100 fleet will be retired over the coming decade. The Embraer 170, used by Airnorth, is still in production and the 5 in service by that carrier have an average age of only 10.9 years; however, there is no indication that Airnorth wants to add to its existing fleet or intends to up-gauge to the larger E190 type. Looking at Australia's aviation landscape, the "work horses" are clearly Code 4C aircraft, both the Boeing 737-800 / MAX family as well as the A320 family. Combined with the demand arguments developed throughout this report, future aircraft availability clearly point at Code 4C aircraft as the design standard for KNX.

6.4.1. CY 2020

FIGURE 35: KUNUNURRA AIRPORT O&D PORTFOLIO – CY 2020

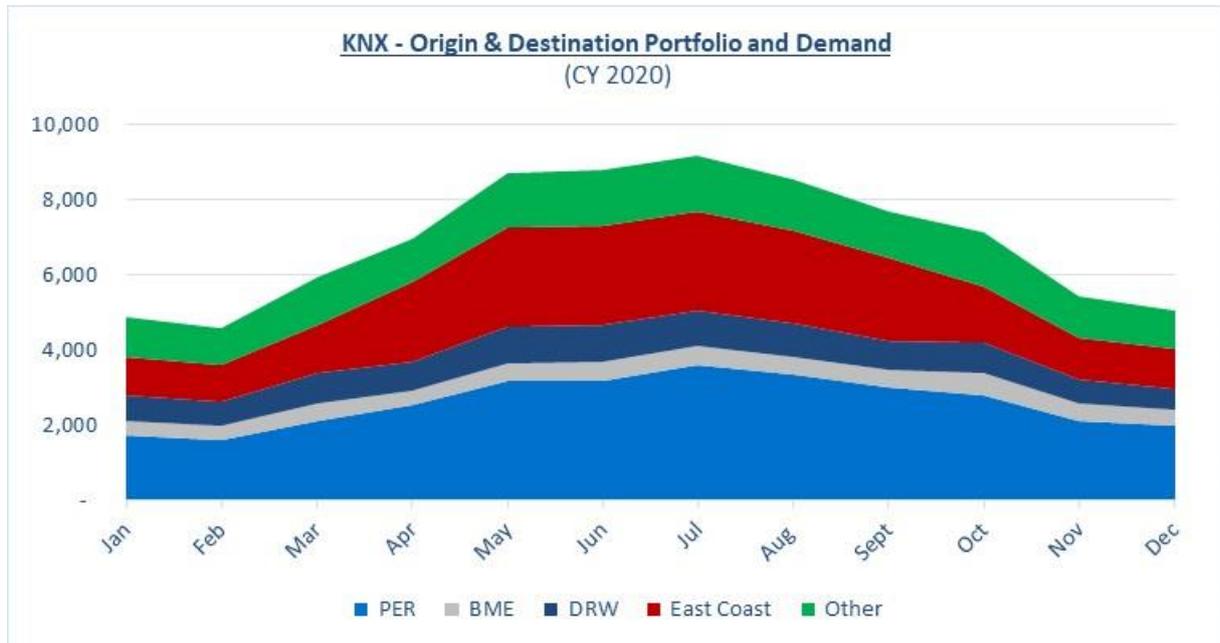


TABLE 8: SUGGESTED AVIATION NETWORK FOR KNX (CY20, DEPARTURES PER WEEK, BY MONTH)

Market	Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRW / BME	Code 3	8	8	10	11							9	8
DRW / BME	Code 4					6	6	6	6	5	5		
PER	Code 3	4	4	4	6	7	7		7	7	6	5	4
PER	Code 4							5					
East Coast (BNE)	Code 4				1	2	2	2	2	1			

6.4.2. CY 2022

FIGURE 36: KUNUNURRA AIRPORT O&D PORTFOLIO – CY 2022

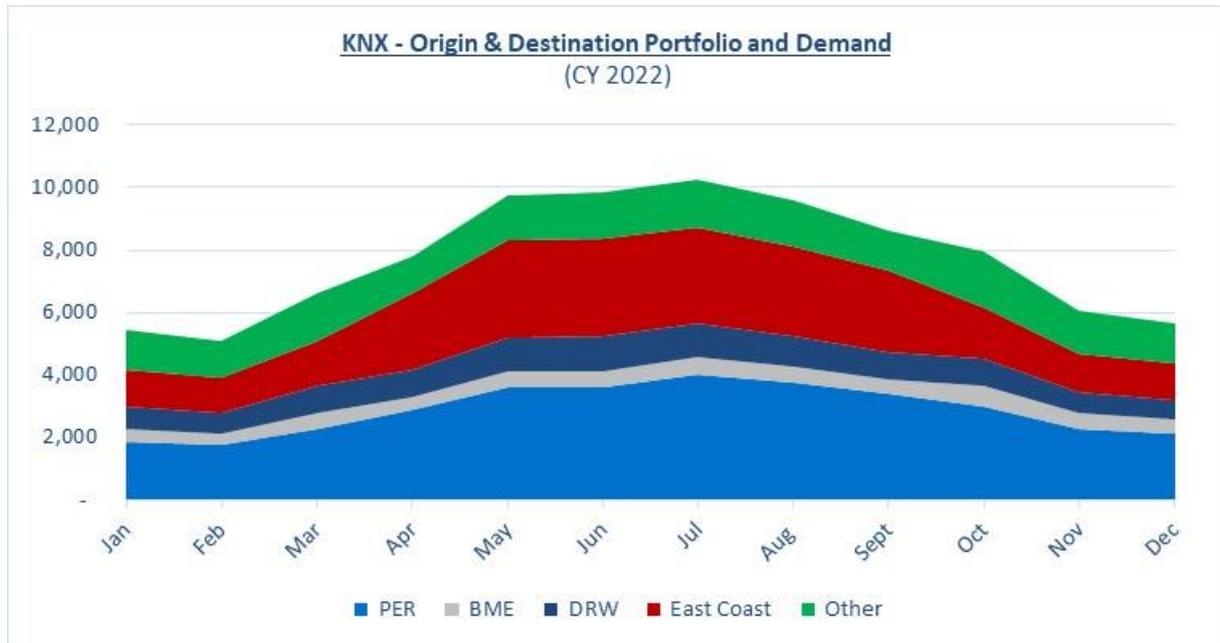


TABLE 9: SUGGESTED AVIATION NETWORK FOR KNX (CY22, DEPARTURES PER WEEK, BY MONTH)

Market	Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRW / BME	Code 3	9	11	12							10	9	9
DRW / BME	Code 4				7	7	7	6	6	6			
PER	Code 3	4	5	6					7	6	5	5	4
PER	Code 4				5	5	5	5					
East Coast (BNE)	Code 4			1	2	2	2	2	1				

6.4.3. CY 2024

FIGURE 37: KUNUNURRA AIRPORT O&D PORTFOLIO – CY 2024

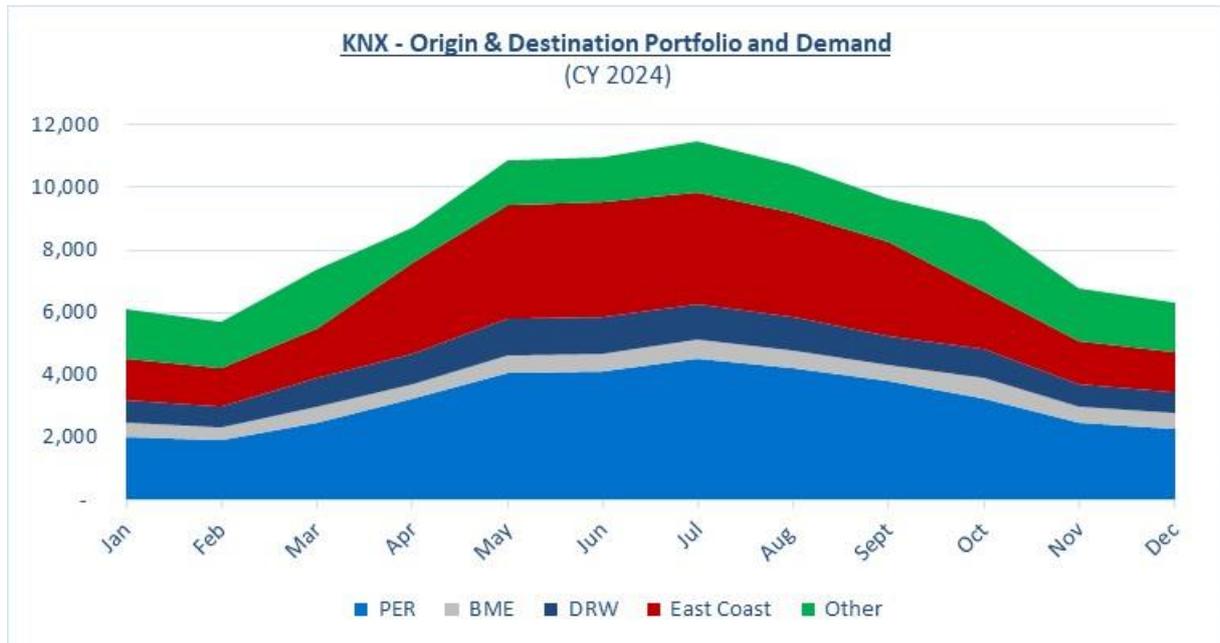


TABLE 10: SUGGESTED AVIATION NETWORK FOR KNX (CY24, DEPARTURES PER WEEK, BY MONTH)

Market	Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRW / BME	Code 3	10	10	12								11	10
DRW / BME	Code 4				6	7	8	7	7	6	6		
PER	Code 3	4	5	5	7						7	5	5
PER	Code 4					5	6	6	5	5			
East Coast (BNE)	Code 4				2	3	3	3	2	2			

6.4.4. CY 2026

FIGURE 38: KUNUNURRA AIRPORT O&D PORTFOLIO – CY 2026

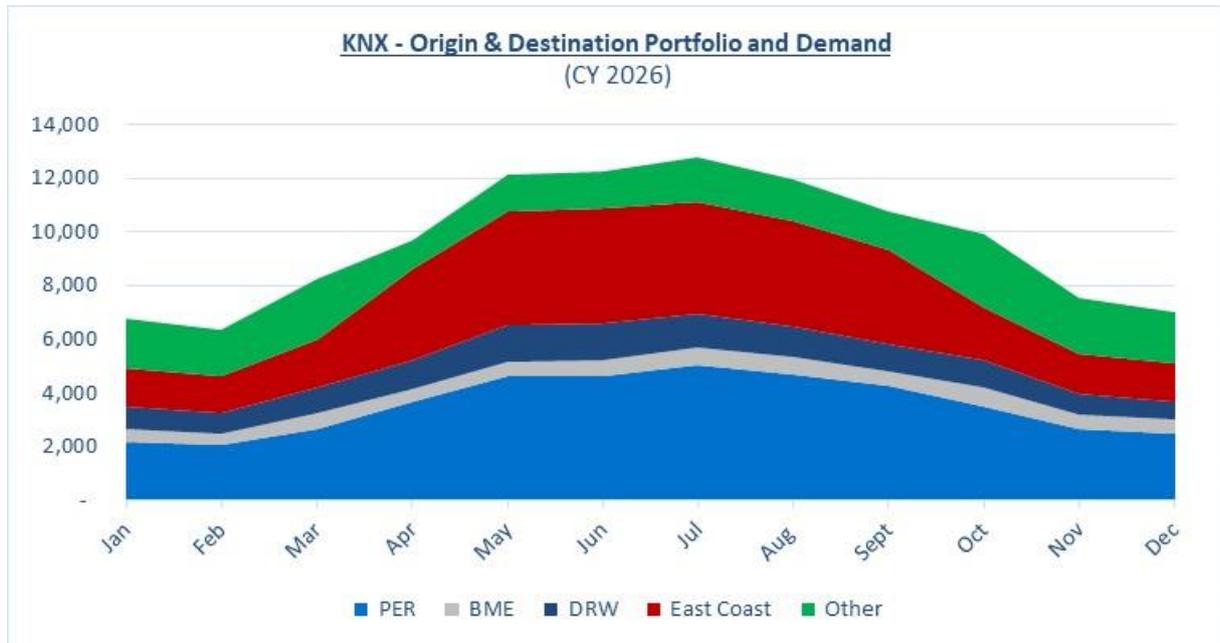


TABLE 11: SUGGESTED AVIATION NETWORK FOR KNX (CY26, DEPARTURES PER WEEK, BY MONTH)

Market	Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRW / BME	Code 3	10	11									12	10
DRW / BME	Code 4			6	7	8	8	8	8	7	7		
PER	Code 3	5	5	6								6	5
PER	Code 4				5	6	6	6	6	6	5		
East Coast (BNE)	Code 4			1	2	3	3	3	3	3	1		

6.4.5. CY 2028

FIGURE 39: KUNUNURRA AIRPORT O&D PORTFOLIO – CY 2028

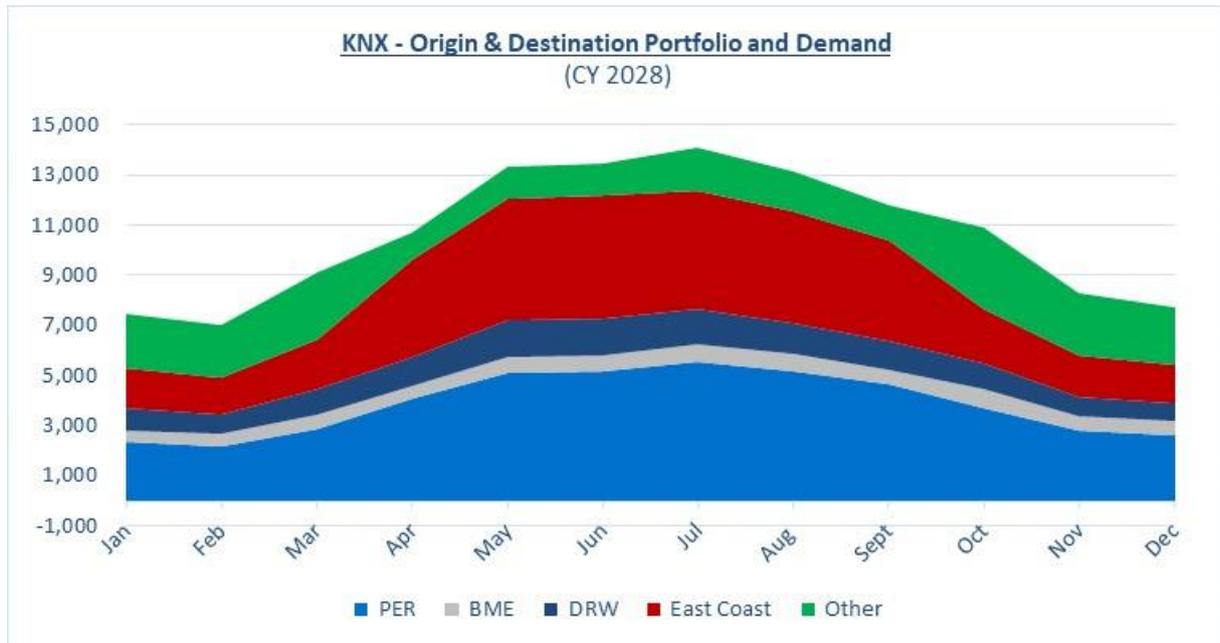


TABLE 12: SUGGESTED AVIATION NETWORK FOR KNX (CY28, DEPARTURES PER WEEK, BY MONTH)

Market	Aircraft	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
DRW / BME	Code 3	11	12										11
DRW / BME	Code 4			6	7	9	9	9	8	8	7	6	
PER	Code 3	5	5	6								6	6
PER	Code 4				5	7	7	7	7	6	5		
East Coast (BNE)	Code 4			1	3	4	4	4	3	3	1		

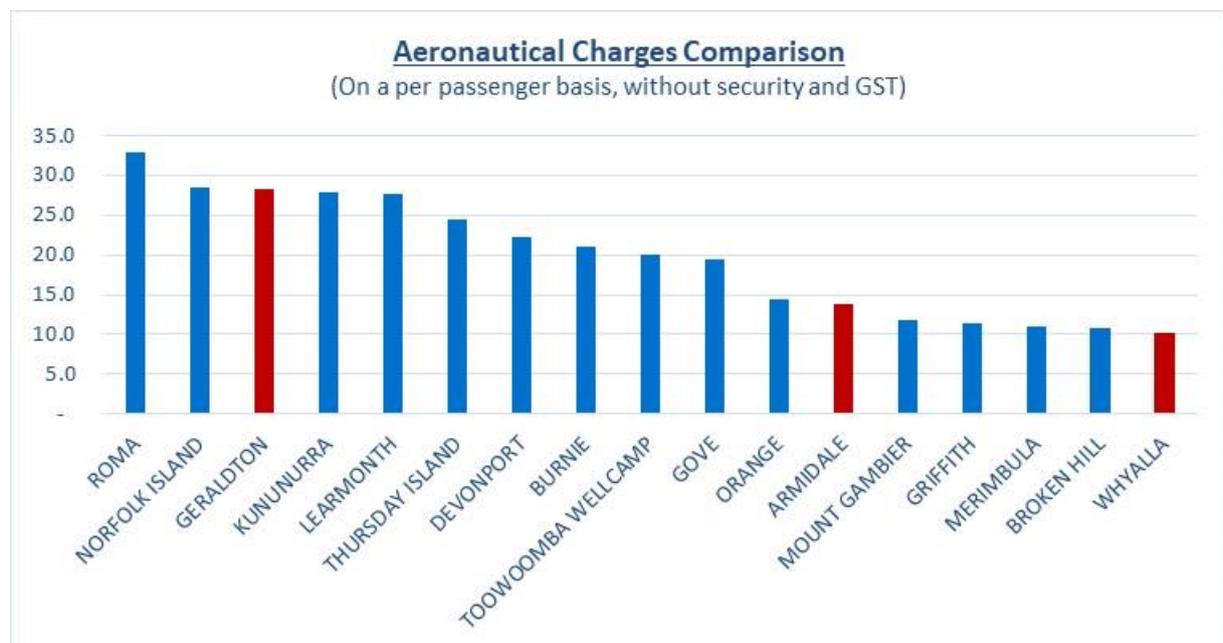
6.5. Aeronautical Charges

A critical consideration in the context of potential airport traffic growth is its relationship and interdependency with an airport’s charging regime. Generally speaking, and in comparison to Australia’s state capital airports, regional airport charges tend to be high. This is driven by the need to maintain adequate facilities, comply with various regulations and the lack of economies of scale. This is even more accentuated if the regional airport runs and charges for passenger and baggage security systems.

There are currently 22 airports in Australia that accommodate between 50,000 and 150,000 passengers per annum. We checked websites, respective Council rates and charges sheets as well as annual reports and were able to assemble aeronautical charges information for 17 airports that are similar in size to KNX (Figure 40). Charges were calculated on a per passenger basis excluding security and GST, assuming operation by a F100 aircraft and achieving an 68% load factor.

KNX is the fourth most expensive port with only three comparison airports having secured same route competition (red bars), with one of them, Geraldton, at similar aeronautical charges as KNX. However, PER-GET has been competitive since November 2011 when QF entered what used to be a Skywest monopoly market and remained competitive after VA acquired Skywest in late 2012. The two other airports that have secured same route competition, Armidale and Whyalla, publish airport charges at between 35 and 50% of KNX, which would have been beneficial in achieving competitive services in 2014 and 2015 respectively.

FIGURE 40: AERONAUTICAL CHARGES COMPARISON (AIRPORTS BETWEEN 50,000 AND 150,000 PASSENGERS)



Realistically, airlines hold the balance of power with regards to regional capacity growth across Australia, meaning there will always be more airports looking for additional capacity than there are airlines willing to change existing or produce and allocate incremental capacity. As such, the typical route business case a regional airport presents to an airline would combine passenger and revenue potential with an incentive deal, which, more often than not, includes reduced or waived aeronautical charges.

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