



Gatwick Airport Northern Runway Project

Appendix A: Response to York Aviation - Forecasts

Book 10

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1 Introduction

- 1.1.1 At Deadline 3 the JLAs submitted an Appendix prepared by York Aviation which itself responded to submissions from the Applicant at Deadline 1 [[REP3-117](#)].
- 1.1.2 The York Aviation document is principally divided between matters relating to forecasts and matters relating to capacity. By way of response, GAL has prepared a schedule which responds to matters relating to capacity and submitted as **Appendix B – Response to York Aviation – Capacity and Operations** (Doc Ref. 10.24). Those matters lend themselves to detailed technical responses against the matters raised. Discussions are continuing in relation to those matters.
- 1.1.3 As York Aviation observe at paragraph 16 of their document, however, available capacity provides a fundamental building block for any assessment of achievable forecast growth. It is for York Aviation and the JLAs to state their view but GAL's understanding is that the parties are close to reaching an understanding on available capacity. In particular, in GAL's view, the discussions and information requests have demonstrated that:
- Gatwick declares, schedules and consistently delivers 55 movements per hour on the main runway and has done for a number of years;
 - It is the runway which provides the constraint on growth rather than local airspace;
 - Whilst the JLAs have drawn attention to delay at the airport:
 - delay is not in itself a reason to object to the DCO Application – rather the reverse - it demonstrates that Gatwick is very popular with airlines but also busy and that additional capacity would bring operational benefits;
 - observations about delay need to be kept in perspective – operational delay should not be exaggerated and current conditions are not impacting on the demand for airlines to operate at busy hours or other hours of the day
 - recent resilience improvements have reduced delay and further improvements are planned;
 - modelling has been undertaken using both current practices and using GAL's planned improvements;
 - it shows that service level will be comparable in the future baseline with the improvements being seen with future performance; but
 - that service level would significantly improve with the NRP infrastructure and concept of operations.

- 1.1.4 In GAL's view the discussions have confirmed the capacity relied upon in the DCO forecasts. They have also shown that Gatwick is a busy airport with relatively limited capacity for peak season ATM growth and that capacity enhancements are necessary both to enhance airport operations and to meet current as well as forecast demand.
- 1.1.5 This document, therefore, focuses on those matters which appear to be further from agreement, relating to forecasting. Discussions on these matters are continuing – for example, around the need for and basis for any sensitivity testing – but agreement has not yet been reached.
- 1.1.6 York Aviation express concern about the piecemeal nature of the relevant information. It is pertinent to record, however, that the information submitted with the DCO (particularly in the **Needs Case** [[APP-250](#)] and the **Forecast Data Book** [[APP-075](#)]) was comprehensive and at least comparable in detail to that submitted by York Aviation in its equivalent documents for the Luton Rising DCO application. The submission of additional information has resulted exclusively from GAL's desire to respond to further requests from York Aviation; including the submission of wholly new "top down" forecasts, which were provided solely to respond to York Aviation's preferred method of forecasting.
- 1.1.7 As a result of the growth of information, the position may appear complex (and indeed operating the world's busiest single runway and forecasting its growth in dual runway operations is complex) but GAL believes that any differences between the parties can be addressed if the forecast growth is seen in the perspective of the achieved performance of the airport and the relatively conservative increments of growth which are forecast.
- 1.1.8 Rather than a point to point rebuttal, therefore, this document responds to the principal matters of apparent concern to the JLAs, under themed headings.
- 1.1.9 Those matters are structured as follows:
- a. Future Baseline:
 - Overview
 - Peak growth
 - Peak spreading
 - Aircraft size and load factors
 - b. Sensitivity Analysis
 - c. Other matters

- 1.1.10 This document also responds to the Request for Further Information from the Examining Authority dated 9 May 2024 where those matters relate to forecasts:
- at paragraph 2.1.6 in relation to a question about the risk of double counting; and
 - at paragraph 2.3.11 in relation to the ability to achieve peak spreading when there is very limited capacity for new peak season slots.

2 Future Baseline

2.1 Overview

2.1.1 It is hoped that York Aviation will be able to return the draft Statement of Common Ground shortly with a significant number of matters agreed. Whilst their Deadline 3 paper [[REP3-117](#)] presents a number of matters as “concessions” made by GAL or apparent criticisms of GAL’s case, many of those matters are in fact agreed and plainly set out in GAL’s own documents.

2.1.2 For example, GAL readily accepts that ATM growth at Gatwick slowed from around 2016 as capacity constraints began to bite at the airport (see the **Needs Case Technical Appendix** Figure 2 [[REP1-052](#)]). York Aviation estimate that ‘prior to the pandemic’ (the precise years are not explained) 70% of passenger growth was accounted for by growth in the number of passengers per aircraft and only 30% due to intensification of the use of the runway (York’s paragraph 7 and figure 2). This is not a surprise – GAL recognises and has explained these same trends. In the **Forecast Data Book** [[APP-075](#)] at paragraph 10.1.1, GAL explained that, in the five years to 2019, flights grew by 11% but passengers grew by 22%. If that analysis was undertaken for the peak season, GAL estimate that peak runway demand only accounted for 19% of the growth in passengers (**Table 1**).

Table 1 Analysis of growth between 2014 and 2019

Growth	2014-19	% of Total
Peak day runway	1.5m	19%
Peak spreading	2.4m	28%
Aircraft size	3.2m	39%
Load factor	1.2m	14%
Total	8.3m	

2.1.3 Whilst the airport has become increasingly constrained, however, growth has continued through some limited ATM growth, a spreading of the peak season, growth in the off-peak season, larger aircraft and increased load factors. GAL knows its airport and its market and is aware of further demand and opportunities for growth. It has set these out in a bottom up forecast. That approach has been criticised by York Aviation but their questions now are increasingly focused on the fine detail of capacity increments and the identity of which airlines may take them up. This is the stuff of bottom up forecasts, which would not be revealed by

more theoretical top down forecasts and which justifies the granularity of GAL's bottom up approach.

- 2.1.4 For ease of reference, GAL's **Technical Note on the Future Baseline** [[REP1-047](#)] explained that the Future Baseline forecast (of growth from 47 mppa in 2019 to 67 mppa in 2047) was made up of 4 main elements:
- Peak growth + 2mppa
 - Peak spreading +5mppa
 - Aircraft size +9mppa
 - Load factor +4mppa
- 2.1.5 Before examining each component of growth, it is relevant to note that Gatwick Airport added over 14 million passengers in the decade leading up to 2019. This equated to an average of 1.4 million passengers per year, or a 3.7% CAGR (compound annual growth rate). Under the future baseline scenario, growth is forecast at under half this historical rate as an average of 700k passengers are forecast to be added each year at a CAGR of just 1.3%.
- 2.1.6 **NOTE:** the ExA's request for further information of 9 May, 2024¹ asked whether these categories of growth might involve an element of double counting.
- 2.1.7 The ExA is right to point out that there could be a risk of double counting when the baseline growth is broken down in this way. However GAL was aware of this theoretical risk and ensured that its approach to preparing the forecasts avoided it, as explained below.
- 2.1.8 The components of growth are not independent of each other, in that (for instance) the assessment of peak spreading will generate further aircraft that will influence the result of load factors, incrementally increasing passengers. This compounding effect has been allowed for in the assessment, hence it does not involve double counting because GAL has not simply assumed that all passengers created through new peak spreading aircraft are then counted again when adding on the increment due to load factor increases. Instead, the increments attributed to each of the various growth factors are distinct and additive in their contribution.
- 2.1.9 To explain in more detail: the benefits of each 'bucket' will vary slightly depending on the order in which they are assumed to take 'effect'. For example, assuming

¹ The ExA asked about these numbers: "These are categorized in the table into two areas: runway/demand related (peak growth and peak spreading) and airline/demand related (aircraft size and load factor). Is there or could there be an element of double counting in such figures? For example, would some of the stated 5mppa growth attributable to peak spreading in the table also be counted within the 9mppa growth allocated for aircraft size as some of the aircraft using the runway at off peak times may be the larger aircraft stated to make up the aircraft size category?"

the larger aircraft benefit after the peak spreading benefit will provide a greater baseline of movements on which to apply larger aircraft benefits.

2.1.10 The order in which GAL has presented the benefits is consistent with how the bottom-up forecasts have been prepared: by first focusing on the forecast runway utilisation before considering the fleets of the airlines assumed to make use of the runway capacity.

2.1.11 The breakdown for each driver of growth is presented in the following table (**Table 4**).

- For example, when using the 2047 assumption for the peak day/month ATMs against 2019's inputs for peak spreading, aircraft size and load factors, would generate 48.8m passengers, +2.3m compared to 2019 [Ref B in table below]
- In the following lines, each subsequent baseline assumption for 2047 is layered on, providing the incremental benefit at each step. For example, adding the baseline 2047 assumption for peak spreading adds a further 5.2 million passengers [Ref C]
- This is continued for the subsequent steps (aircraft size and load factors), once they are all considered then the 67.2m passenger throughput in 2047 is derived [Ref G].
- With this approach, there is no separate compounding benefit as the growth drivers are considered additively.

Table 2 Previously shared baseline outputs (m passengers)

	As Presented	Benefit	Ref.	Calc.	Assumptions			
					Busy Day /MonthATMs	Peak Spreading	S/ATM	LF
20 19	46.6		A		20 19	20 19	20 19	20 19
Peak day/month	48.8	+2.3	B	=B- A	baseline 2047	20 19	20 19	20 19
Peak spreading	54.0	+5.2	C	=C- B	baseline 2047	baseline 2047	20 19	20 19
Seat / ATM	62.9	+8.9	D	=D- C	baseline 2047	baseline 2047	baseline 2047	20 19
Load Factor	67.2	+4.3	E	=E- D	baseline 2047	baseline 2047	baseline 2047	baseline 2047
Compounding				n/a	n/a	n/a	n/a	n/a
2047	67.2		G	=A+B+C+D+E				

2.2 Peak Growth (Busy day and month)

2.2.1 This is the ability to add more flights into a typical day at the busiest time of year, with the busy day being used to assess this. Gatwick has recently (for 2024) increased its capacity declaration in the busy day by 12 slots. The ability to do this has been achieved through a number of measures to improve runway utilisation which include the construction of the Rapid Exit Taxiway (RET).

2.2.2 There is also opportunity to grow traffic throughout the Busy Month (August) by more of the August days becoming like the busiest day. In 2019 the peak day in August achieved 928 ATMs whilst the quietest day only reached 861 ATMs. Recent trends highlight how the off-peak days have outgrown the peak day, (+6% average day growth vs +4% busy day growth in the 2014-2019 period)

2.2.3 Principal components of the forecast increase in peak season movements are shown on the slide copied below (**Figure 1**). Hopefully, the slide is a useful way of capturing the essential information.

Figure 1 Principal components of the forecasted increase in peak season movements

The additional capacity recently released at Gatwick provides modest uplift across the day over 2019, providing more capacity for home/away based carriers. The current baseline assumptions should be seen in this context

LGW, Summer slot declaration for a busy day

SCHEDULE	0500-2100 UTC SLOT CAPACITY DECLARED	0500-2100 UTC ATM DEMAND SCHEDULED	24 hours Demand*
S17	869	854	939
S18	870	843	929
S19	870	845	928
...
S24	882
...
2038		869	954
2047		871	956
2047 vs 19		+26 [871-845]	+28 [956-928]

Recent capacity releases will make delivery of baseline demand highly achievable

*Baseline
DCO
forecasts*

- In summer 2019 Gatwick had 870 available slots during the core hours of the busy day.
- The DCO baseline forecasts assumed a similar level of capacity to Summer 2019.
- Since 2019, Gatwick has declared additional capacity, releasing an additional 12 slots in the core hours of the day [growing from 870 to 882]
- Of the growth Gatwick has assumed +26 ATM core hour growth on the busy day (2047 vs 19) of which 12 are supported by the newly released capacity and the remaining 14 make use of current 'spare' capacity

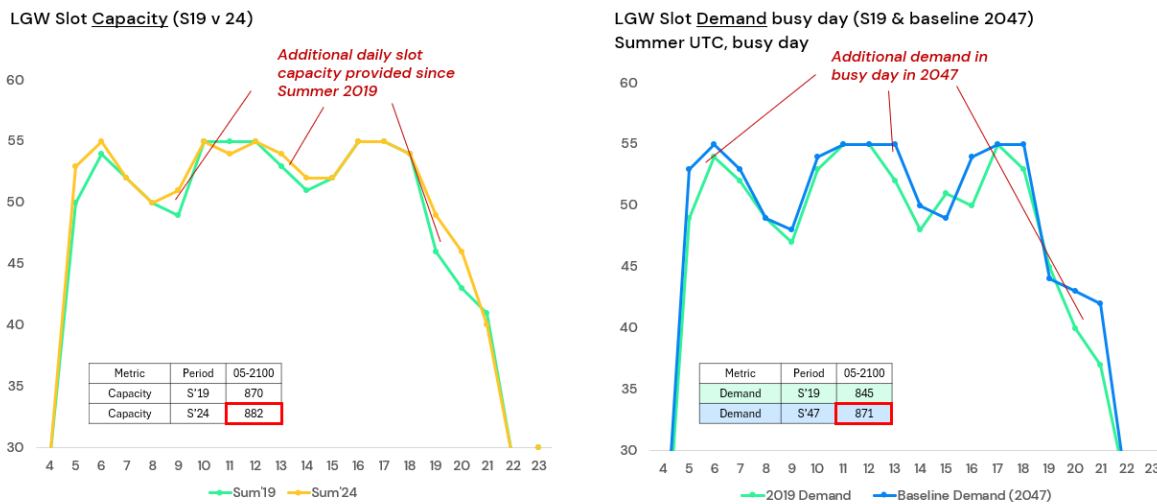
2.2.4 It shows the very limited growth in ATMs that the baseline forecasts rely upon in the peak season. In the core day an additional 26 ATMs are forecast in 2047 (871), compared to the number flown in 2019 (845). As the Table shows, 854 were flown in 2017 without the benefit of the new RET (rapid exit taxi-way) or other recent operational improvements. 17 extra movements per day compared to 2017 is a growth of just 2% in 30 years.

2.2.5 There should not be any doubt that there is the operational capacity for this number of flights. Indeed, as the Table shows, GAL's 2024 capacity declaration is for 882 slots, an increase of 12 declared slots compared with 2019, showing GAL's confidence in its runway capacity and ACL's endorsement of that confidence.

- 2.2.6 This information was set out in the application in the busy day schedules provided with the **Forecast Data Book [APP-075]** at Annex 7. As explained there, the increased number of slots does not require GAL to exceed its established peak hour declared capacity of 55 movements (which it has scheduled and achieved since 2014). Rather, GAL now has the confidence to declare more hours at 55. The schedules show 6 hours operating at 55 mph, compared with 3 hours in the 2019 busy day schedule.²
- 2.2.7 It is apparent that this capacity component of the forecast is credible and achievable.
- 2.2.8 York Aviation question, however, whether it is achievable in the sense that they consider that the additional capacity appears to arise at times of day which are unattractive to airlines, particularly in the evenings. To assist in understanding this issue, the following figure (**Figure 2**) has been prepared:

Figure 2 Slot capacity and slot demand

DCO: The incremental capacity will be filled as well as some further growth across the day.



- 2.2.9 The graph on the left identifies the additional slots declared and released for summer 2024 compared with those declared in 2019 so that their spread across the day can be seen. On the right, forecast demand from GAL's 2047 busy day schedule is shown by comparison with achieved movements in 2019, again so that the time of the additional forecast movements can be seen. Opportunities are shown to exist for several periods in the day. Information from ACL slot demand shows demand greater than capacity registered for all of these periods

² Note: On the 2019 busy day not all movements operated and declared capacity was slightly higher.

except 20:00 hours. This is shown at Figure 3 to York Aviation’s most recent document [[REF3-117](#)].

2.2.10 Gatwick has successfully achieved growth in the traditionally less busy hours. For example, for the busy month (August), in the 2014-19 period ATMs in the ‘core’ hours of the day (0600-2000) only grew 5% whilst the off-peak hours (exc. Night) grew 20% (more than three times faster).

2.2.11 In order to illustrate who may take those slots, a further figure (**Figure 3**) has been prepared:

Figure 3 Airlines that will use additional capacity in the DCO baseline

Which airlines will use additional capacity made available in the DCO baseline?

Time of Day	Type of Growth	Airlines
05:00-08:00	<ol style="list-style-type: none"> 1. Long haul arrivals from North America, East Asia, Middle East and Africa, Latin America, Caribbean 2. First departure of the day for based aircraft at LGW 	<ol style="list-style-type: none"> 1. Air China, China Eastern, China Southern, Norse, British Airways, TUI, Air Peace, Singapore, Qatar, Emirates, Air Transat, Westjet 2. easyJet, British Airways Vueling, Wizz, TUI
09:00-13:00	<ol style="list-style-type: none"> 1. Departures of the long haul arrived that arrived first thing in the morning 2. Second daily flight from Middle Eastern carriers 3. First arrival of European carriers 4. Second flight of the day day for based aircraft at LGW 	<ol style="list-style-type: none"> 1. Air China, China Eastern, China Southern, Norse, British Airways, TUI, Air Peace, Singapore, Qatar, Emirates, Saudia, Air Transat, Westjet 2. Qatar and Emirates 3. Swiss, Norwegian, TAP, Turkish, SunExpress, Iberia Express, Air Europa, Icelandair, Ryanair, Royal Air Maroc 4. easyJet, British Airways Vueling, Wizz, TUI
14:00-18:00	<ol style="list-style-type: none"> 1. Arrivals and Departures from based aircraft 2. Inbound short haul flights from non LGW based carriers 3. South Asia Arrivals 4. Flights to Africa 5. Flights to Central Asia 	<ol style="list-style-type: none"> 1. easyJet, British Airways Vueling, Wizz, TUI 2. Volotea, SkyExpress, Tunisia, Croatia Airlines, Iberia Express, Air Europa, Icelandair, Ryanair, Royal Air Maroc 3. Air India 4. Norse, Ethiopian, Air Mauritius 5. Azerbaijan, Turkmenistan, Uzbekistan
19:00-23:00	<ol style="list-style-type: none"> 1. Arrivals of the last flight from based aircraft 2. Inbound evening flights from EU carriers 3. Departures from the afternoon South Asia flights 4. 3rd flight from Middle East 5. 2nd Chinese daily flight 6. Flights to Africa 	<ol style="list-style-type: none"> 1. easyJet, British Airways Vueling, Wizz, TUI 2. Swiss, Norwegian, TAP, Turkish, SunExpress, Wizz, easyJet, Iberia Express, 3. Air India 4. Qatar and Emirates 5. Air China, China Eastern, China Southern 6. Norse, Ethiopian

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2.2.12 For each time slot, the figure summarises known or likely demand. Evening slots have been more difficult to fill until recently but GAL has had recent success in attracting new airlines to operate services in these hours – for example, the services operated by Air India. As identified in the **Needs Case Technical Appendix** [[REP1-052](#)], the Applicant has identified South East Asia as a key growth market and is actively targeting additional services from carriers to make best use of this capacity.

2.2.13 Also, the quieter days in the peak months have been outgrowing the peak day. In the 2014-19 period ATMs on the off-peak days (below average) grew more

than 7% compared to the 4% growth on the peak day. (The peak day increased from 892 to 928 ATMs [+4%], whilst the quieter days increased from 828 to 887 [+7%]).

2.3 Peak Spreading

2.3.1 This is a measure of the seasonality of the demand at the airport, or put another way, a comparison between how busy the airport is in the summer and the winter seasons. With increased peak spreading, the winter months become busier in relation to the summer and the profile of demand through the year flattens. This is measured by comparing the average August day traffic to the average across the year.

2.3.2 GAL has written extensively about peak spreading in response to York Aviation. The extent of peak spreading assumed is set out in the **Technical Note on the Future Baseline** [\[REP1-047\]](#) from paragraph 1.5. As set out there, recent growth has demonstrated increased use of ‘shoulder’ or ‘off-peak’ periods, and these trends are forecast to continue.

2.3.3 For example, in the 2014-19 period ATM growth on average across the year was 6% but off peak month ATMs grew 14%, i.e. the off peak months have been growing at more than twice the rate of the peak month (14% vs 6%). It is not in dispute that there remains unused capacity in the off peak season for these trends to continue.

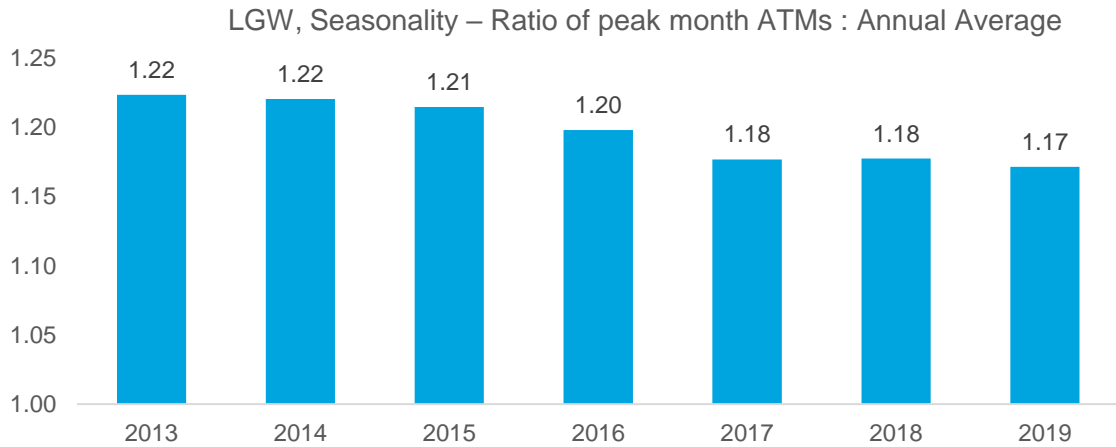
2.3.4 When examining the passenger growth (rather than just ATMs), these trends are even more pronounced as load factor growth has been stronger in off-peak periods. The following table (**Table 2**) highlights how the average day has grown 22% since 2014 whilst the peak day has only grown 10%.

Table 3 Passenger growth between 2010, 2014 and 2019

	2010	2014	2019	10-19	14-19
Peak	129k	151k	167k	29%	10%
Avg	87k	105k	128k	46%	22%
Ratio	1.48	1.44	1.30	n/a	n/a

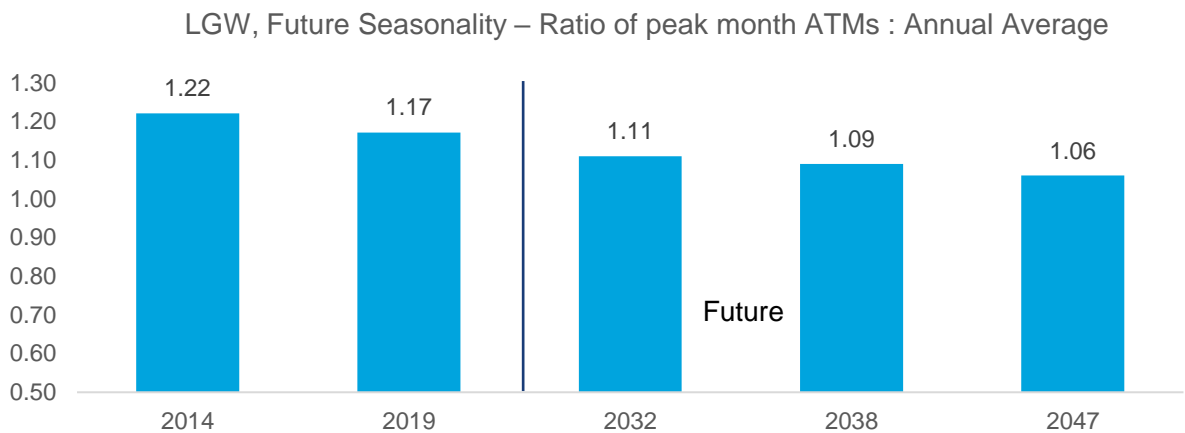
2.3.5 As shown in the **Technical Note on the Future Baseline** [\[REP1-047\]](#) Gatwick has been successful in de-peaking the profile of annual traffic. In 2013 the peak month was 22% busier than the year-round average. In the 2013-2019 period, this ratio narrowed progressively. The development of Gatwick Airport’s busy month ratio is shown in the following chart (**Figure 4**), having continued to decline on an ongoing basis from 2013 to 2019.

Figure 4 Seasonality – ratio of peak month ATMs: Annual Average



2.3.6 The forecasts in the **Forecast Data Book** [[APP-075](#)] project that the ratio will continue to decline and that Gatwick will continue to become less seasonal (**Figure 5**).

Figure 5 Future seasonality – ratio of peak month ATMs: Annual Average



2.3.7 There is no doubt about the physical capacity for this to be achieved but York Aviation doubt that the market will continue to de-peak in the way that it demonstrably has to date.

2.3.8 These matters are addressed in GAL’s D3 submission **The Applicant's Response to the Local Impact Reports - Appendix A - Note on the Principle of Development** [[REP3-079](#)] from paragraph 6.1.29 and it would not be productive to repeat them here. Table 13 in that document highlights the reality that new entrants, including long haul carriers and several named incumbent airlines are increasingly operating year round schedules.

2.3.9 There are a number of recent examples which support the reality of this type of growth:

- **Slot Trades:** All recent slot trades at Gatwick have resulted in improved year-round utilisation. (Wizz Air, BA, Vueling, easyJet have all been airlines to purchase LGW slots, often for several million pounds per slot pair).
- **Slot Pool:** Virtually all capacity allocated from the slot pool post Covid has resulted in airlines entering Gatwick with very low levels of seasonality. Airlines include, Air India, Air China/China Eastern/China Southern, Air Mauritius, Saudia, Delta, Ethiopian, Air Peace (Nigeria), Singapore Airlines, AZAL (Azerbaijan), Wizz (various).

2.3.10 A summary of the growth provided by many of these carriers (excluding those entering Gatwick in 2024) is provided in the following table (**Table 3**).

Table 4 Summary of growth by airline carriers

Airline	Passengers	
	2016	2023
easyJet	17,525,404	19,007,846
Vueling	917,247	2,695,536
Wizz Air	70,973	2,592,165
Emirates	922,364	970,135
Norse	0	500,268
Qatar	0	222,338
Iberia Express	152,837	221,101
Air India	0	216,923
SunExpress	0	172,212
Air China	0	88,511
Sky Express	0	73,389
Saudia*	0	70,841
China Eastern	0	61,203
Air Mauritius*	0	32,820

*Airlines commenced operations from London Gatwick part way during 2023; Saudia commenced in Jun'23 & Air Mauritius commenced in Oct'23.

2.3.11 York Aviation have seized on the reference at paragraph 6.1.32 of [REP3-079](#) that *“the Airport is also full during the peak summer season and the scope for additional services is therefore very limited, particularly as airlines will not launch new services without access to the lucrative peak summer slot capacity where the most profitable opportunities lie.”*

2.3.12 **NOTE:** (This is the paragraph referred to in the ExA's request for further information of 9 May).³

2.3.13 However:

- GAL has always recognised that the scope to launch new year round services is limited because of constraints on peak capacity (and this is an important element of GAL's need case). Nevertheless, some increase in peak capacity can be achieved, enabling new year round services – demonstrated by the increase in declared capacity for summer 2024 (see above);
- The creation of new peak slots is not always necessary to achieve year round services. Slots are regularly traded at Gatwick, allowing new entrants to upgrade to year round services. Equally, some airlines choose to lend out their slots when they are not using them, whilst others can utilise their slots for different services across the year or change the use of their slots from short haul to year-round long haul services.⁴
- Recent trends demonstrate significant growth by airlines in the off-peak months. For example, 29 daily winter ATMs were added without any growth in the peak (2016-19);
- Once Gatwick's currently recovering traffic profile has returned to pre-Covid behaviour and the impact of year-round new entrants such as 10 long haul carriers⁵ have been accounted for, Gatwick will have further de peaked;
- The trend is not unique to Gatwick. For example, the seasonality ratio for Ryanair's operation at Stansted averaged circa 1.07 over the period from 2013 to 2019, comparable with the level which the Applicant has assumed Gatwick will reach by 2047.

2.3.14 Following ISH7, the ExA requested further information on peak spreading and GAL's response is set out in response to Actions 7 and 8 of **The Applicant's Response to Actions: ISH7** (Doc Ref. 10.26.3). The Applicant is grateful for the questions posed which have given the opportunity to further explain how the

³ The request sought a response to the concerns of the JLAs "concerning the propensity of airlines to grow outside of the peak period when they may not be able to add capacity in the peak".

⁴ Examples as given in GAL's response to Action 8 (Actions in Response to ISH7)

⁵ JetBlue (USA), Air India, Air China/China Eastern/China Southern, Air Mauritius, Saudia, Delta, Ethiopian, Air Peace (Nigeria), Singapore Airlines, AZAL (Azerbaijan), Wizz (N. Africa)

interests of both Gatwick and the airlines are served through differential charges and bilateral agreements aimed at incentivizing the use of year round capacity and how the creative, commercial use of existing slots is enabling both Gatwick and the airlines to benefit from growth when peak capacity is limited.

2.4 Aircraft Size and Load Factors

- 2.4.1 Aircraft size is simply the number of available seats on each aircraft. This is usually averaged across the assumed fleet for the purposes of broad capacity calculations although the Environmental Statement effects are derived from the individual aircraft sizes assumed in the busy day fleet. A larger proportion of long-haul aircraft will increase the average aircraft size, as will carriers choosing to use larger versions of short-haul aircraft in order to maximise passenger carrying ability in a slot constrained airport.
- 2.4.2 Load factor is a measure of how many of the available seats on any aircraft are actually filled. In 2019 the occupancy averaged 87% for short haul markets and 85% for long haul markets.
- 2.4.3 Of the forecast growth in the future baseline from 47 mppa in 2019 to 67 mppa in 2047, the largest component is made up of forecast growth in passengers per aircraft (13 mppa out of a growth of 20 mppa) (see above paragraph 2.1.4). However, these elements do not appear to be significantly challenged. The York Aviation document at Deadline 3 [[REP3-117](#)] states in relation to aircraft size and load factor:
- “46. The major part of the claimed growth in baseline airport throughput derives from aircraft size increases and increases in load factor. Whilst the assumptions as set out in Table 1.3 regarding aircraft size appear more realistic in the light of recent aircraft orders by the principal carriers using the Airport, this does have implications for the fleet mix assessed in terms of environmental impact...”*
- 2.4.4 Environmental issues will be addressed elsewhere but this recognition in relation to passengers per aircraft is helpful.
- 2.4.5 York’s paragraph 47 does question whether the forecast growth in load factors can be sustained – citing that much of the forecast growth is off-peak where load factors may be expected to be lower and suggesting that there must be a limit to load factors that can be achieved. However:
- as set out above, Gatwick has experienced stronger growth in load factors in off peak services; and

- Gatwick has already recognised that the rate of load factor growth will slow and the growth in average aircraft size and load factor is significantly lower than historical trends. The details of this forecast trend are set out in the **Technical Note on the Future Baseline** [[REP1-047](#)] in Section 1.7.

2.4.6 In Gatwick's view, the scrutiny to which its future baseline forecasts have been subjected has only helped to demonstrate their robustness.

3 Sensitivity analysis

3.1.1 The Examining Authority has requested the following information in their recent Rule 17 letter:

- the Joint Local Authorities (JLA) to confirm their own future baseline figure or the range that they would be content with the Applicant assessing. Such figure/range to be provided alongside consideration of which elements of the Applicant's case they disagree with.
- the Applicant to provide a sensitivity analysis based on this JLA future baseline figure (or, if a range, then the minimum and maximum of this range) to test the effects of this alternative future baseline upon the effects stated in the application Environmental Statement. Such effects to include, but not necessarily be limited to, noise, air quality, socio-economics, traffic & transport, ecology/HRA, and historic heritage. In addition, consider whether this sensitivity analysis gives rise to any change in the magnitudes of impacts considered within the Transport Assessment

3.1.2 In discussions with York Aviation, the Applicant has requested that the JLAs define not only the future baseline figure that they think should be tested but also the with-project case, if different from the Applicant's forecast set out in the application. Any sensitivity analysis will require an upper and lower end, in order to understand the impact of the Project.

3.1.3 York Aviation on behalf of the JLAs therefore supplied the Applicant on 15 May 2024 with their position on behalf of the JLAs, as follows:

"There are clearly many permutations that could be tested but we consider that it would be reasonable to test the difference between our most pessimistic cases and also between our most optimistic cases for consistency of assumptions regarding aircraft size and load factor, i.e.:

- *between a Baseline Case at 56.8 mppa and an NRP Case at 74.8 mppa;*
- *between a Baseline Case at 60.5 mppa and an NRP Case at 80.2 mppa."*

3.1.4 In the process of trying to agree the approach to answering this request the Applicant has also proposed to York Aviation an alternative version of the sensitivity analysis.

- 3.1.5 Without prejudice to its position that the submitted DCO forecasts should be preferred, the Applicant will report its sensitivity analysis using the two scenarios provided by the JLAs, by Deadline 5.
- 3.1.6 However, (and again without prejudice to its position) the Applicant will also report the sensitivity consequences of its alternative version which was proposed to York Aviation, within the same timeframe.

4 Other Matters

- 4.1.1 There are a number of other detailed matters raised by York Aviation in REP3-117 but GAL believes it has responded to those issues in general through other submissions (particularly in the **Note on the Principle of Development** [[REP3-079](#)] and **Response to the West Sussex Authorities Appendix F – Needs Case** [[REP3-080](#)], which were submitted at the same time).
- 4.1.2 It may be more productive to explore those matters, if still considered necessary in light of the without-prejudice sensitivity test which is being carried out, through a Statement of Common Ground.