

## Annex 4 – Capacity constraints and airline switching at Stansted

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# 1. Introduction

## *Introduction*

- 1.1 Capacity constraints across actual and potential substitute airports can affect the ability of airlines to switch services between them. Analysing capacity constraints across London airports can therefore help inform the scope for potential airline substitution to and from Stansted airport (Stansted), and consequently the extent to which airlines might be able to constrain the airport operator's behaviour.

## *Previous views on capacity constraints at Stansted*

- 1.2 The Competition Commission's (CC) Q5 Stansted price control review in October 2008 found that the other BAA London airports (including Gatwick airport (Gatwick) before the ownership change) and Luton airport (Luton) were the closest substitutes for Stansted.<sup>1</sup> It concluded that "actual competition between Stansted and the other BAA London airports in Q5 would be limited by common ownership and capacity constraints". Regarding the change of ownership at Gatwick, although the CC recognised that competition between it and Stansted would no longer be restricted by common ownership, "the extent to which Gatwick could constrain Stansted during Q5 would be limited by capacity constraints at Gatwick resulting in the rivalry being largely confined to competition at the margin over off-peak slots".<sup>2</sup> Regarding Luton, the CC found that actual competition between Stansted and Luton during Q5 "would be limited by capacity constraints on peak hour usage at Luton", although it noted that these constraints were recent and that there had previously been "vigorous" competition between the two airports. While the CC recognised the potential for competition between Luton and Stansted during Q5 as a result of capacity expansion at the former, this capacity expansion has not yet materialised though it should be noted that Luton airport's Masterplan is under review.
- 1.3 In its March 2009 BAA airports market investigation report, the CC concluded that there was some spare runway capacity at Gatwick outside the peak Summer traffic season and there was significant terminal capacity. At Stansted, the CC concluded that there was significant spare runway and terminal capacity throughout the day and year, although the runway was at, or very close, full capacity utilisation at peak times of the day in the Summer, although it noted its declining traffic trend for the preceding two years.<sup>3</sup>
- 1.4 In February 2012, the CAA's Initial Views on the degree of market power at Stansted indicated that there was significant off-peak capacity at Stansted,

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<sup>1</sup> Source: Competition Commission, Stansted Airport Limited – Q5 price control review, p.22 October 2008, [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2008/fulltext/539.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/539.pdf) (accessed January 2013)

<sup>2</sup> Source: Competition Commission, Stansted Airport Limited – Q5 price control review, p.22 October 2008, [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2008/fulltext/539.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/539.pdf) (accessed January 2013)

<sup>3</sup> Source: Competition Commission, Stansted Airport Limited – Q5 price control review, p.96 October 2008, [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2008/fulltext/539.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2008/fulltext/539.pdf) (accessed January 2013)

although this might reduce over time as demand grows. However, the CAA also indicated that there was very little capacity during a 2 or 3 hour peak period, with constraints likely to spread to other hours as demand grows. Regarding capacity at other airports, it found that capacity constraints in the early morning appear to be a feature at Luton, Gatwick and a number of other European airports. The CAA considered that this lack of early morning capacity might reduce the ability of airlines to relocate operations from Stansted, although Gatwick – which is relatively full by European standards – has been able to accommodate a number of new airline services, including a number of services switching from Stansted.<sup>4</sup>

1.5 In their response to the CAA’s Initial Views, Stansted Airport Limited (STAL) indicated that it was confident that, following further analysis of the current capacity situation, the CAA would be satisfied that there is not a shortage of spare capacity at Stansted at peak times. STAL suggested the following analysis would demonstrate this:

- an investigation of the availability of runway slots for departure movements for the Winter 2011 season;
- an investigation of the availability of runway slots for departure movements at peak times for the Summer 2012 season;
- a comparison of the availability of runway slots for departure movements at peak times for the Summer 2012 and Winter 2011 seasons with corresponding seasons over the last five years; and
- an investigation of the availability of equivalent runway capacity availability at Heathrow airport (Heathrow), Gatwick, Luton and London City airport (London City) in Summer 2012.

#### *Structure of this annex*

1.6 This annex focuses on the degree of capacity constraints at Stansted and the other London airports that are most likely to be considered as substitutes by passenger airlines considering switching airport but who still want to serve the London “catchment”. The impact of capacity constraints at continental European airports that may be substitutable will be analysed separately.

1.7 The analysis of the effects of capacity constraints at the London airports taken in this paper involves two steps:

- First, the historical, current and prospective levels of available capacity at Stansted at different times of day and traffic seasons are examined. This provides an “in principle” indication of the extent to which new entrants could begin, and incumbent airlines could expand, based on inbound operations at the airport either in terms of individual routes or aircraft. An airline’s ability to do so is likely to depend on its business model and corresponding pattern of slot demand. In addition, analysing the operations of the airport’s incumbent airlines may reveal additional barriers to entry or expansion for airlines at Stansted. For example, the

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<sup>4</sup> Source: CAA, Stansted Market Power Assessment – Initial Views, February 2012, p98  
<http://www.caa.co.uk/docs/5/StanstedMarketPowerAssessment.pdf> (accessed January 2013)

significant presence of a competitor may make it less profitable for a potential entrant to begin operations at an airport, which could weaken the airport operator's ability to attract new business and compete against other airports.

- Second, analysing the degree of capacity constraints over the same timescale at airports that are likely to be considered substitutes by Stansted's current airlines can reveal the extent to which Stansted's incumbent airlines appear able to threaten credibly to switch away marginal services in response to an increase in airport charges, a decrease in service quality or inadequate investment. Substitution by airlines could take different forms, including the relocation of individual marginal services or marginal based or inbound aircraft. In addition, it could provide an indication of the competitive pressure, albeit purely in terms of available capacity, that STAL may face in trying to attract new business.

1.8 The structure of this annex is:

- The remainder of this chapter describes the various types of airport capacity and sets out the overall level of capacity utilisation at the London airports.
- Chapter 2 analyses the capacity constraints at Stansted and the potential for new entrant airlines to begin, and incumbents to expand, their services from the airport.
- Chapter 3 examines the degree of capacity constraints at the London airports most likely to be considered substitutes by Stansted's current airlines and analyses the scope for the latter to switch marginal services to these airports.
- Chapter 4 summarises and reaches conclusions based on the analysis based on the preceding chapters.

#### *Defining airport capacity*

1.9 Airport capacity can be defined in terms of the number of passengers that pass through the airport, and/or by the number of the air traffic movements (ATMs) that can be accommodated by the airfield. The number of passengers that can be handled by the airport is driven by the size of the terminal, the allocation of terminal space for the processing of passengers and the number of staff allocated to the processing of passengers<sup>5</sup>. The maximum number of passengers is also in part determined by the suitability of the airfield (including runways and taxiways) to the different types of aircraft. The total number of aircraft movements that can be operated from the airport in a given period of time is mainly derived from the number and specification of its runways and taxiways, the availability of stands (the demand for which is driven primarily by based aircraft), and airspace capacity. In addition to these drivers that vary according to decisions by the

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<sup>5</sup> For cargo-only flights, the size of the cargo processing area(s) can influence airport capacity.

airport operator, airlines can influence airport capacity in a number of ways, for example by varying the size of their aircraft.

- 1.10 Overall, the capacity of airport infrastructure and facilities is generally considered in terms of hourly flows of passengers or aircraft movements. These are then translated into annual equivalents using a range of assumptions about the profile of aircraft and passenger demand across the day, week, month and season.<sup>6</sup>
- 1.11 The determination and allocation of airport capacity involves several parties. In the UK, responsibility for declaring capacity parameters rests with the airport operator. A number of parties might advise the airport operator on how best to meet this responsibility. Where requested by the airport operator, NATS would provide advice, based on its operational expertise and modelling, on runway capacity issues. Other parties might advise on the capacity of ground infrastructure, such as aircraft stands and passenger hourly limits.
- 1.12 Slot coordination at major UK airports, including Heathrow, Gatwick, Stansted and Manchester, is the responsibility of Airport Coordination Limited (ACL), which carries out this role within a framework of EU regulations, national regulations and the IATA Worldwide Scheduling Guidelines. Typically, the airport coordination committee (or specialist subcommittees)—whose membership includes the airport operator, the airlines, NATS and representatives of general/business aviation—brings together the coordination parameters used by ACL to produce the detailed departure and arrival schedule for the airport. ACL also attends the meetings of the coordination committee as an observer.

### **Overall capacity at London airports**

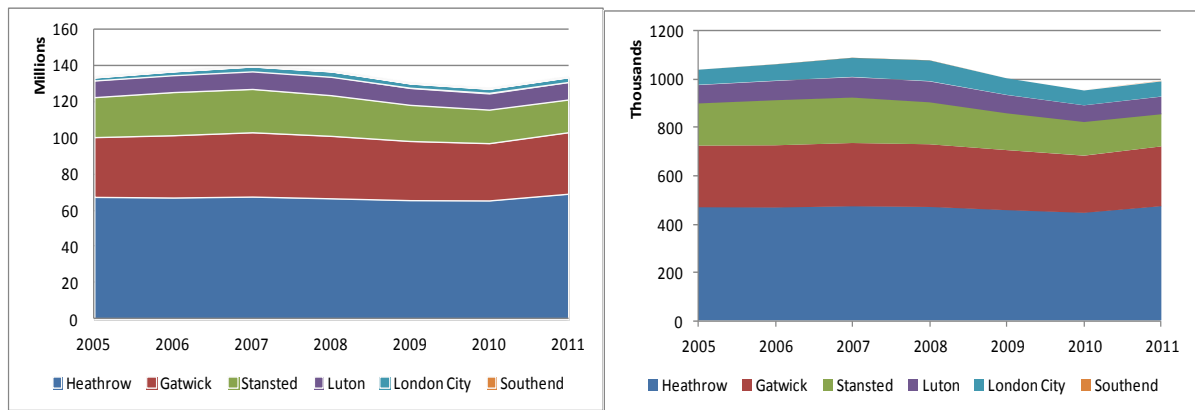
- 1.13 There are six airports classified by IATA (and the CAA) as being London airports: Heathrow, Gatwick, Stansted, Luton, London City and Southend airport (Southend). The passenger and movement numbers across these airports, set out in Figure 1 below, show that they are reverting to trend following the recent economic recession and could be expected to grow in the short to medium term as the macroeconomic conditions improve. This would mean that spare capacity at the London airports would fall over time, as there is currently no expectation of an expansion in runway capacity in the near term at any of these airports. The CAA notes that a report by the Davies Commission on increasing airport capacity in the UK is not due before 2015.<sup>7</sup>

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<sup>6</sup> For more detail on the technical capacity of airports, please see the CC's appendix 4.1 on technical components of airport capacity published with the BAA airports market investigation. See: [http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep\\_pub/reports/2009/fulltext/545\\_4\\_1.pdf](http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2009/fulltext/545_4_1.pdf) (accessed October 2012)

<sup>7</sup> See: <http://www.bbc.co.uk/news/uk-politics-19517692> (accessed September 2012)

**Figure 1: Passengers and ATMs at the London airports 2005-2011**



Source: CAA airport statistics

1.14 Each of the six London airports has a different technical specification, which affects its capacity maxima. Table 1 shows that Heathrow is the largest airport, with two runways and four open passenger terminals, while Gatwick is the second largest with one runway in use and two passenger terminals, while the other London airports all have one runway and one passenger terminal. However, only Heathrow, Gatwick and Stansted have runways suitable for the largest types of aircraft, with runways over 3000m in length. Similarly, London City has the shortest runway, with 1199m Take-Off Run Available (TORA), which means that airlines operating from the airport are restricted to aircraft at the lower end of the size range. The number of aircraft parking stands is also important as it determines the maximum number of aircraft that can be based (i.e. parked overnight) at the airport by airlines. As discussed further in paragraph 3.15, this is already a binding constraint at Luton.<sup>8</sup> In addition, an airport requires sufficient terminal capacity to handle the number and flow of passengers required for airlines to achieve adequate load factors in their use of runway capacity. As discussed further in chapters 2 and 3, binding terminal capacities might in some cases restrict the number of runway slots that can be operated at an airport.

<sup>8</sup> Source: Leigh Fisher for London Luton Airport Operations Limited (LLAOL) "Capacity Analysis of London Luton Airport with Reference to Coordinated Designation 9 May 2012 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/2707/dft-2012-22-capacity-analysis.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/2707/dft-2012-22-capacity-analysis.pdf)

**Table 1: Airport technical specification**

	Runways	Declared Runway length (TORA) and width	Aircraft parking stands	Air Transport Movements 2011	Terminals	Passengers (millions) 2011	Operating hours
<b>Heathrow</b>	2	Northern 3,902m x 45m. Southern 3,660m x 45m	203 (133 served by an airbridge, 70 remote stands)	476,295 (capped at 480,000)	5	69.4	24h (subject to Night Quotas between 2330 and 0600)
<b>Gatwick</b>	1	3,316m x 45m	115 (67 pier served split approximately 50:50 between the two terminals, 48 remote stands served by coaches)	244,571	2	33.6	24h (subject to Night Quotas between 2330 and 0600)
<b>London City</b>	1	1,199m x 30m	18	61,064	1	3	Monday – Saturday: Opens 0630 Local; Sunday: Opens 1230 Local.  Monday – Friday & Sunday: Closes 2200 Local; Saturday: Closes 1230 Local.  The airport operates restricted hours on public holidays and is closed on 25th December.
<b>Luton</b>	1	2,160m x 46m	30 + 3 reserve stands	72,138	1	9.5	24h with night flight restrictions
<b>Stansted</b>	1	3,048m x 46m	110 with smallest aircraft; 70 with largest aircraft*	136,899 (capped at 264,000: 243,500 pax ATM, 20,500 cargo ATM and 10,000 non-air transport ATMs)	1	18	24h (subject to Night Quotas between 2330 and 0600)
<b>Southend</b>	1	1,739m x 37m	15	1,259	1	0.042	24h

Source: NATS aeronautical information services website, CAA airport statistics, and airport websites

Note: Gatwick has a second runway which is only used when the main runway is out of use.

Note: Of the five terminals, Heathrow has four terminals currently in use since November 2009, with the first phase of Terminal 2 being re-opened in 2014. The second phase includes the replacement of Terminal 1 and is due to open in 2019.

\* "Smallest" aircraft number gives the number of stands available when they are occupied by the smallest aircraft for which the aircraft is designed. "Largest" denotes the number of available stands when they are occupied by the largest aircraft for which they are designed.

### Capacity utilisation at the London airports

1.15 To understand the effects of capacity constraints at the London airports on the ability of airlines to switch operations to and from Stansted, historical slot utilisation is examined at likely substitute airports for Stansted's incumbent airlines. As set out in more detail in paragraph 2.2, approximately 80 per cent of Stansted's ATMs are operated by Ryanair and easyJet, in both Summer and Winter traffic seasons. These two airlines use a low cost business model, with the remainder of the airport's commercial traffic consisting of other low cost carriers, charter operators and cargo-only airlines.

1.16 The London airports at which airlines with business models comparable to Stansted's current airlines have historically<sup>9</sup> operated are Luton and Gatwick, which suggests that these airports are likely to be considered substitutes for Stansted. In addition, in April 2012, easyJet commenced operations from

<sup>9</sup> At least in the past 5 to 10 years.

Southend, which suggests that the airport could also be a substitute for Stansted for certain airlines.<sup>10</sup>

1.17 By contrast, Heathrow is not considered to be substitutable for Stansted by the latter's incumbent airlines as:

- Heathrow is a hub airport operating at 98 per cent of slot capacity and facing considerable excess demand for the remaining slots (and the resulting comparatively high airport charges<sup>11</sup>); and
- the airport serves mainly full service carriers, whose business models involve longer turnaround times in large part due to their sector lengths flown and in some cases to synchronise their networks. As a result, Heathrow is unsuitable for airlines, such as low cost carriers, whose operations rely on quick turnaround times.

1.18 London City is also not considered to be a substitute for Stansted as:

- it has a relatively short runway, unsuitable for Ryanair's and easyJet's entire current fleets (B737-800s and A319/320s respectively), which implies that entry of these airlines would require the leasing of smaller aircraft;
- there is only a small number of aircraft parking stands, which limits the number of aircraft that can be based at the airport;
- its passenger base consists primarily of business passengers (63 per cent according to CAA Passenger Survey data for 2010), with airline operations consequently being concentrated in the morning and evening; and
- the airport closes for a portion of the weekend, which limits operations.

1.19 This annex therefore focuses on Stansted, Luton and Gatwick and also takes Southend into account as a possible substitute.

1.20 The development of overall slot utilisation and capacity constraints at Stansted, Luton and Gatwick is shown in

1.21 Figure 2, expressed as the number of hourly ATMs as a proportion of the total declared capacity for a given week across the three airports for the last five Summer traffic seasons<sup>12</sup>. This gives a lower-bound estimate of the level of spare capacity. On average, weekly slot utilisation has declined by 6 per cent for the whole day (10 per cent when including 2008<sup>13</sup>), though this in part reflects the general macroeconomic conditions.

1.22 The pattern of slot utilisation across the day reflects the business models of airlines operating at these three airports. For example, each of these airports has considerable ATMs from based low cost carriers, who require departure

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<sup>10</sup> However, data on capacity utilisation at Southend is not available, so its availability as a substitute will be qualitatively taken into account.

<sup>11</sup> The tariff airport charges reflect capacity constraints and are also subject to economic regulation by the CAA.

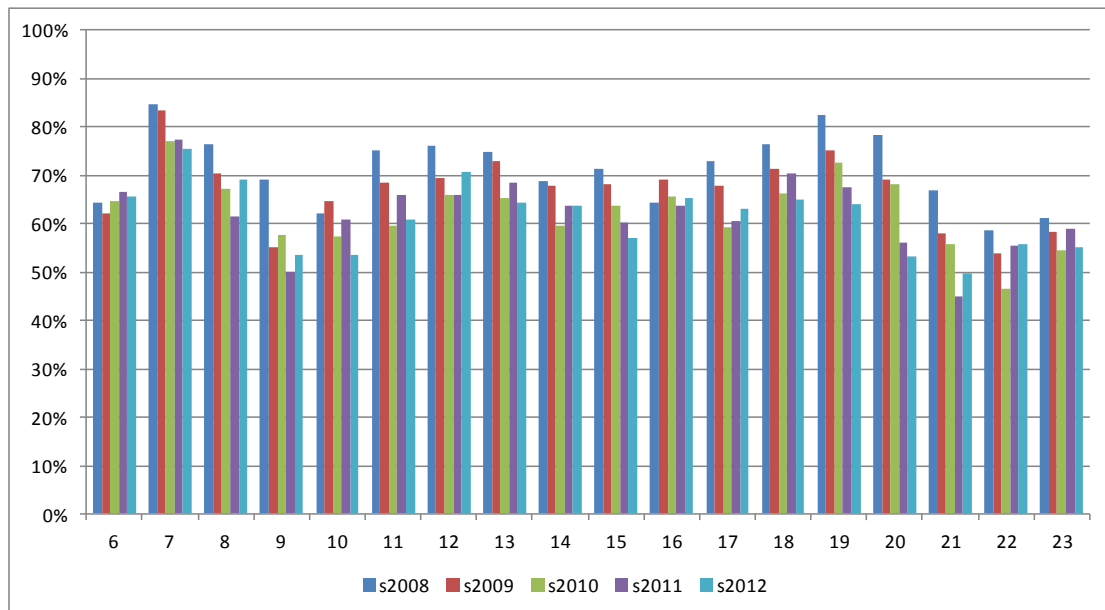
<sup>12</sup> Airline demand for slots at a given airport is typically highest during the Summer traffic seasons.

<sup>13</sup> The decline is greater when including 2008 figures due in large part to that year's traffic figures including pre-recession demand.



slots during the early morning to maximise their aircraft utilisation, as shown by the hour of 0700-0759 BST having the highest slot utilisation across the years.

**Figure 2: Overall weekly slot utilisation across Stansted, Luton and Gatwick S08-S12<sup>14</sup>**



Source: CAA Airports Statistics, ACL start of season reports

1.23 In general, low cost carriers, as well as any other carrier with based aircraft seeking to operate between four and six sectors per aircraft per day to maximise utilisation<sup>15</sup>, require slots at specific times of the day. First, the based aircraft require an early morning departure for the first rotation. Indeed, ACL told the CAA that low cost carriers’ departure times typically need to be as early as possible.<sup>16</sup> This is followed by a return arrival slot in the middle of the day and subsequent departure slot for the second rotation. Lastly, a typically late evening arrival slot is required as the aircraft returns to base at the end of its third rotation. For inbound carriers, ACL told the CAA that these generally want their aircraft to arrive at the end of their first rotation and depart on their second before 1000, which means that the inbound flight would need to arrive around 0830 and depart within 30 or 45 minutes of this time to ensure that they can obtain a suitable arrival slot at their next destination airport.<sup>17</sup>

1.24 The following chapters consider in more detail the capacity situation at Stansted, Luton and Gatwick to assess the implications for airline substitution

<sup>14</sup> ATM data from the first complete week in July for each Summer traffic season, declared capacity from ACL start of season reports.

<sup>15</sup> These can take two general forms: 1. A-B-A-B/C-A patterns where the base airport is the return airport for the second and fourth rotation, and 2. A-B-C-B-A “W” pattern consists of four rotations (flights), with the arrival of the second and departure of the third rotation occurring from another airport than the one at which the aircraft is based. Source: Frontier Economics – Market Power Assessment: Stansted and Gatwick Airport, p.17-19 [http://www.caa.co.uk/docs/5/rpt-easyJet%20Competition%20Assessment%20Final%20Report\\_Abridged.pdf](http://www.caa.co.uk/docs/5/rpt-easyJet%20Competition%20Assessment%20Final%20Report_Abridged.pdf)

<sup>16</sup> Source : ACL

<sup>17</sup> Source: ACL

and the extent to which airlines may be able to switch away from Stansted and potentially constrain the airport operator's behaviour.

## 2. Capacity constraints at Stansted

2.1 This chapter analyses the capacity constraints at Stansted during different periods of the day to understand how constraints affect the potential for new entrant airlines to begin, and incumbents to expand, their services at the airport.

### Main airlines

2.2 Stansted is the fourth largest UK airport, handling 18 million passengers in 2011. However, the number of ATMs at Stansted has fallen from 178,012 to 136,899 between 2005 and 2011, which has also resulted in a fall in total annual passenger numbers. Figure 4 shows that the majority of flights at Stansted are operated by airlines with a low cost carrier business model: Ryanair and easyJet account consistently for approximately 80 per cent of ATMs at Stansted between 2008 and 2012, with 39 and [38] based aircraft respectively during the 2012 Summer traffic seasons<sup>18</sup>. Air Berlin, also a low cost carrier, has the third largest share of ATMs and operates inbound services. The remainder of the passenger airlines (accounting for 9 per cent of ATMs across the two most recent traffic seasons) includes charter operators Thomas Cook, Thomson and Monarch; Aurigny which handles mostly routes between the UK and Channel Islands; and inbound low cost carriers Germanwings and Pegasus.

**Figure 3: Airline share of ATMs at Stansted**



Source: CAA airport statistics

### Capacity allocation and utilisation

2.3 The number of hourly slots allocated at an airport is a direct reflection of the airline demand for slots at particular times of the day, as well as a number of other factors. According to the Summer 2011 ACL start of season report<sup>19</sup>, airline demand for runway slots at Stansted is within declared capacity limits at all times of day for each day of the week.<sup>20</sup> For Winter seasons, airline demand tends to be weaker, as it reflects typically weaker passenger

<sup>18</sup> Source: STAL

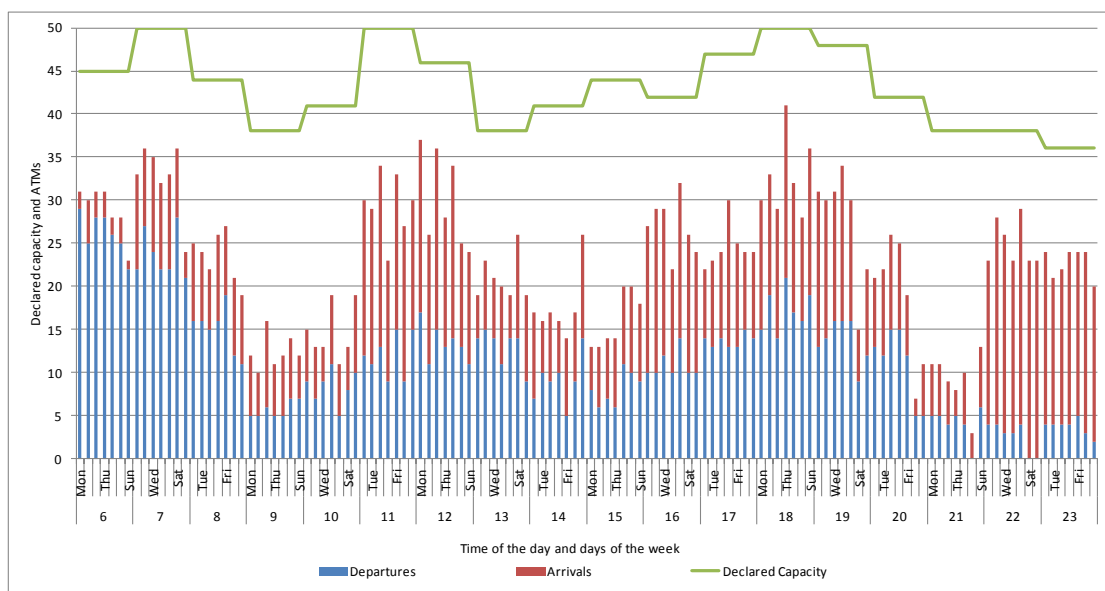
<sup>19</sup> For the start of each traffic season, ACL publishes reports illustrating the level of allocation for the airport's runway relative to its declared capacity, alongside several other statistics.

<sup>20</sup> Although not included in other ACL start of season reports since 2008, the graph showing no excess demand for Stansted during Summer 2011 can be reasonably expected to be representative of other Summer seasons between 2008 and 2012 due to the downward trend in passenger numbers.

demand during these months. The absence of significant excess airline demand for slots at Stansted suggests that most airline demand for slots is likely to have been accommodated.

- 2.4 Overall, between 2008 and 2012, average weekly slot allocation at Stansted across the day has fallen significantly in both the Summer (70 per cent to 53 per cent) and Winter (58 per cent to 41 per cent) traffic seasons, which reveals a gradual weakening of airline demand for slots at Stansted during this period.
- 2.5 Figure 4 and Figure 5 show the slot allocation at Stansted, according to whether a movement is a departure or arrival, for the Summer 2012 and 2011/12 Winter traffic seasons. There appear to be four peaks of traffic at Stansted through the day in both traffic seasons, though the level of traffic is lower during the Winter traffic season. The first peak occurs from 0600 to 0759 BST, which primarily consists of departures of based aircraft.<sup>21</sup> This is consistent with the business model of Ryanair and easyJet, Stansted’s main incumbent airlines, who aim to maximise aircraft utilisation by scheduling their first flights as early as possible.<sup>22</sup> The second peak occurs from 1100 to approximately 1259 BST, where there is an approximately even split of departures and arrivals, and a similar third peak in airline traffic between 1600 and 1959 BST. The last peak occurs in the late evening, between 2200 and 2359 BST, where the majority of arrivals most likely represents the return of based aircraft for overnight parking. On the whole, this pattern is consistent with the operation of six rotations per aircraft by based low cost carriers.<sup>23</sup>

**Figure 4: Slot allocation per hour during peak week at Stansted - Summer 2012**



<sup>21</sup> Source: ACL start of season reports Winter 2011/12 and Summer 2012

<sup>22</sup> Source: Frontier Economics - Market Power Assessment: Stansted and Gatwick Airport

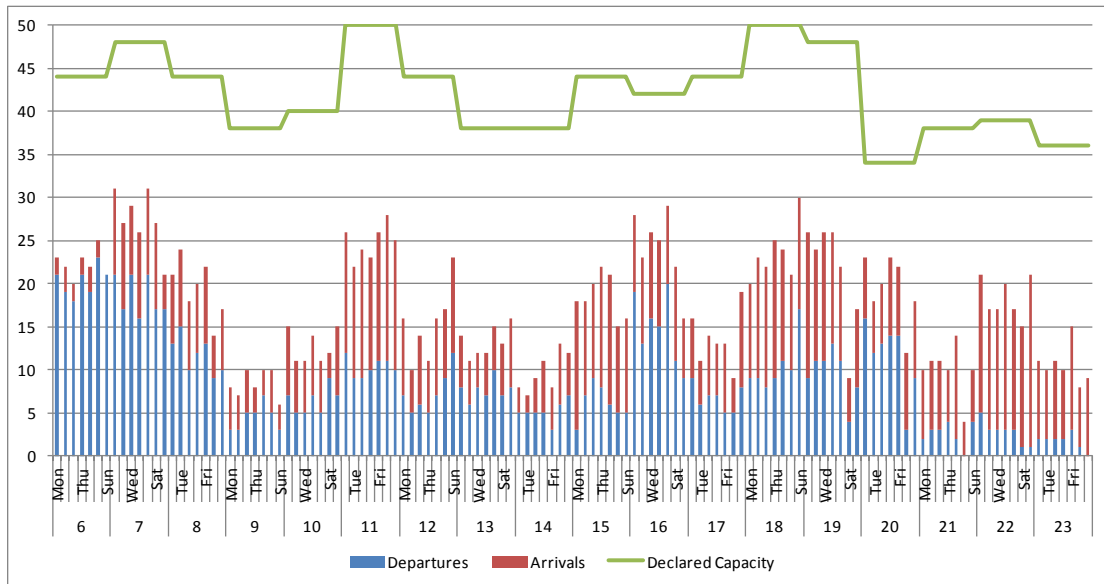
[http://www.caa.co.uk/docs/5/rpt-easyJet%20Competition%20Assessment%20Final%20Report\\_Abridged.pdf](http://www.caa.co.uk/docs/5/rpt-easyJet%20Competition%20Assessment%20Final%20Report_Abridged.pdf) (accessed January 2013)

<sup>23</sup> Source: Frontier Economics - Market Power Assessment: Stansted and Gatwick Airport, p.17-19

[http://www.caa.co.uk/docs/5/rpt-easyJet%20Competition%20Assessment%20Final%20Report\\_Abridged.pdf](http://www.caa.co.uk/docs/5/rpt-easyJet%20Competition%20Assessment%20Final%20Report_Abridged.pdf) (accessed January 2013)

Source: CAA analysis of ACL start of season data

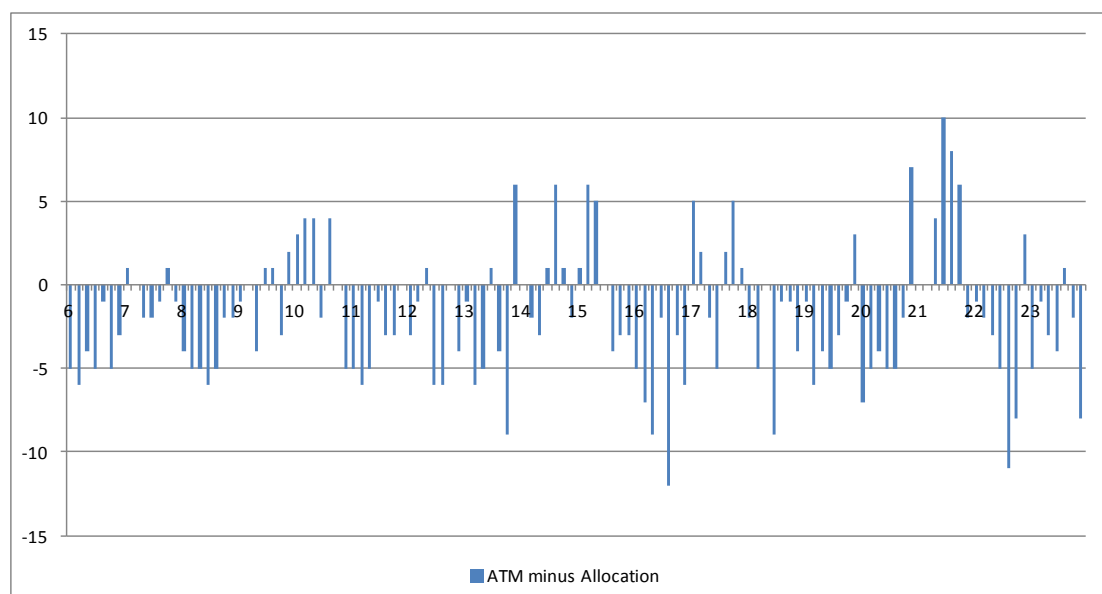
**Figure 5: Slot allocation per hour during peak week at Stansted – Winter 2011/12**



Source: CAA analysis of ACL start of season data

- 2.6 The ACL start of season reports can provide potential new entrants with an indication of available spare capacity at the airport, and could potentially inform airlines' decisions to enter. However, because these reports are compiled before the operation of slots during the traffic seasons (for example the information in the Summer 2012 ACL report is current as of 17 March 2012), unused slot re-timings, hand-backs and/or transfers between carriers subsequent to the initial allocation of slots would not be reflected in these reports. As a result, the actual number of slots operated may differ from the reported slot allocation.
- 2.7 For example, Figure 6 shows that during the Summer 2011 traffic season the number of ATMs operated was in many cases different from the number of allocated slots. In most cases, there were fewer ATMs operated than there were slots allocated, with the modal difference being 5 ATMs.

**Figure 6: The difference between the number of slots operated compared to the number slots allocated Summer 2012**



Source: CAA airport statistics, ACL start of season report Summer 2012

Note: Graph shows (ATM operated) – (Slots allocated) for each hour in the ACL peak week for Summer 2012

2.8 There are a number of reasons why the number of ATMs operated by an airline in a particular hour may differ from the number of slots it has been allocated. Under the EU slot regulations<sup>24</sup>, airlines are allowed to hold unused 20 per cent of their allocated slot portfolio (through the “80-20 rule”). ACL has told the CAA that based carriers may hold two slot pairs for one flight departure as a contingency if they are uncertain of the timing of the slot they would obtain at the destination airport. Alternatively, a slot could be obtained for a planned route but subsequently handed back if the airline decides not to operate the route. In addition, ACL says that airlines do hold on to slots even though it is apparent that the routes they claim the slots for have been cancelled or are not open for sale. Coordinators are limited by the slot regulations to prevent this behaviour.<sup>25</sup> However, the CAA has not seen any clear evidence of this at Stansted. By contrast, ACL said that inbound airlines tend not to apply for more slots than they require, and would hand back a number of slots if the timing was unsuitable or passenger demand was insufficient to make a particular service sustainable. There may also be a discrepancy due to flights arriving early or being delayed which means that the ATM would be counted off-scheduled, and possibly in a different hour than the one in which it was scheduled.<sup>26</sup>

2.9 The overall slot utilisation since 2008 based on actual ATMs is shown for the Summer and Winter traffic seasons in Figure 7 and

2.10 Figure 8 respectively. The graphs show that slot utilisation at Stansted has fallen over time for most hours during both traffic seasons for comparable

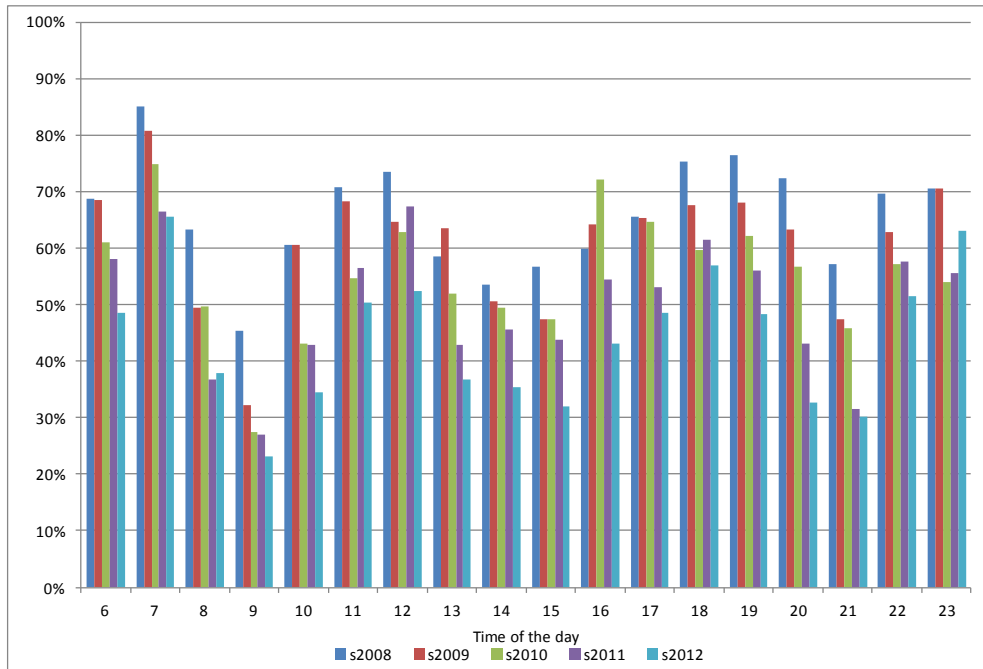
<sup>24</sup> These are currently undergoing review.

<sup>25</sup> Source: ACL

<sup>26</sup> Source: ACL

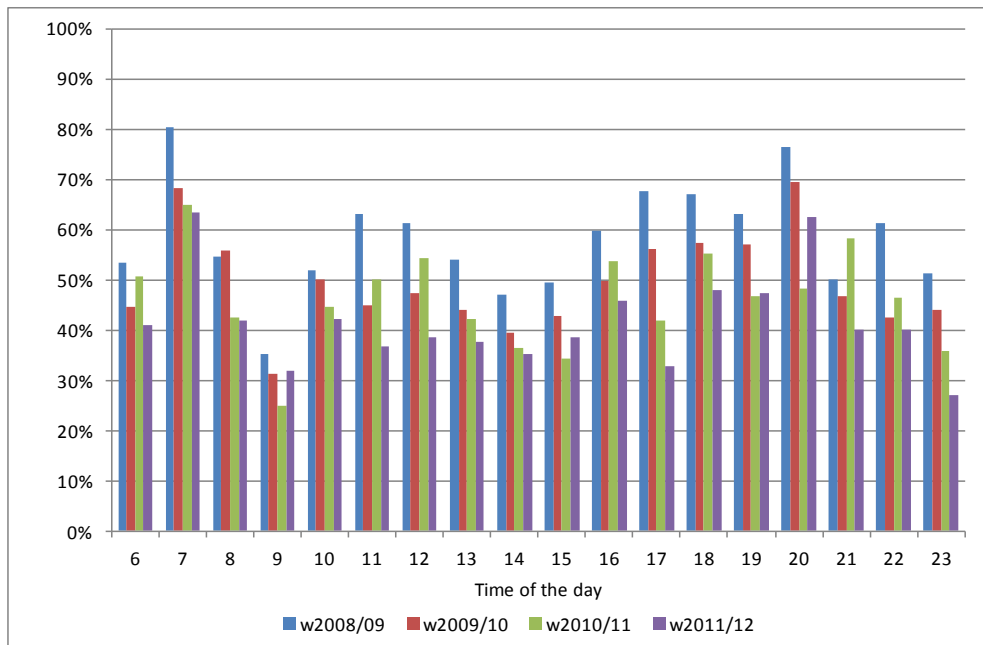
declared capacities, as the only change has been to increase the capacity limit by 1 slot (from 44 to 45) for the hour of 0600-0759 BST in the Summer traffic seasons. On the basis of these graphs, the level of total spare capacity appears to have significantly increased between 2008 and 2012 during most of the day and both traffic seasons.

**Figure 7: Slot utilisation per week Summer 2008-2012 (ATM/ACL declared capacity)**



Source: CAA airport statistics, ACL data on declared capacity

**Figure 8: Slot utilisation per week Winter 2008/09-2011/12 (ATM/ACL declared capacity)**

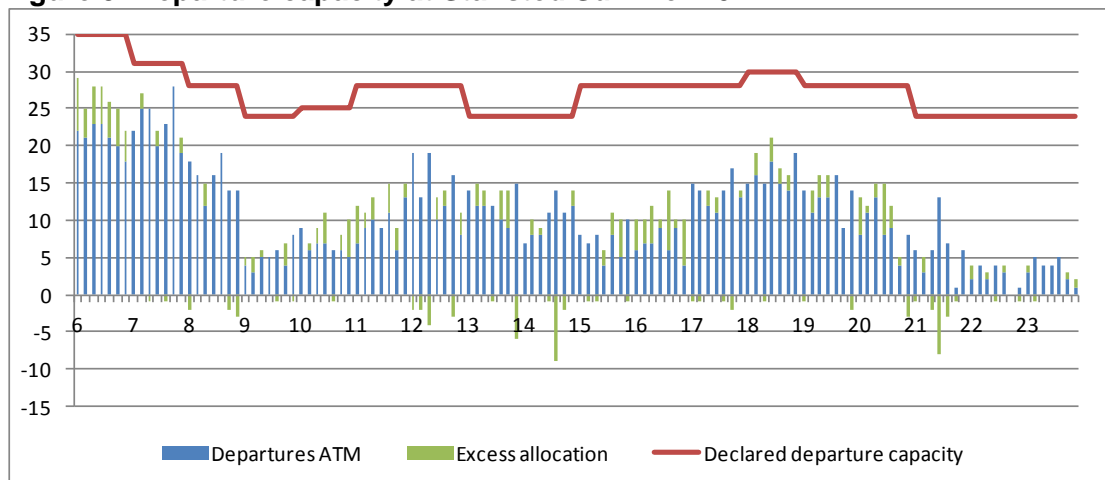


Source: CAA airport statistics, ACL data on declared capacity

## Capacity and airline switching

- 2.11 The previous section has shown that total spare capacity at Stansted has increased between 2008 and 2012 across most hours of the day in both traffic seasons. Indeed, STAL has provided evidence that shows that the number of departures in peak hours has fallen year-on-year from 2007<sup>27</sup>. To analyse the likely effects of the capacity situation at Stansted on airline switching, both the scope for potential new based or inbound entry by other carriers with various business models and the scope for expansion by incumbent airlines are considered. For both based and inbound airlines, sufficient and suitable departure slot availability is central to determining the scope for entry or expansion<sup>28</sup>. This section focuses on the degree of departure slot constraints at different times of the day at Stansted and the implications for airline switching to the airport.
- 2.12 Figure 9 shows there remains departure capacity available during the early morning peak, and considerable departure capacity throughout the rest of day on each day of the week during the Summer 2012 traffic season. Figure 9 shows a similar pattern for the Winter 2011/12 traffic season, though with overall lower slot utilisation levels.

**Figure 9: Departure capacity at Stansted Summer 2012<sup>29</sup>**



Source: CAA airport statistics, ACL start of season report data

Note: Where the excess allocation is negative, this means that operated ATMs exceed the number of slots allocated in the start of season report.

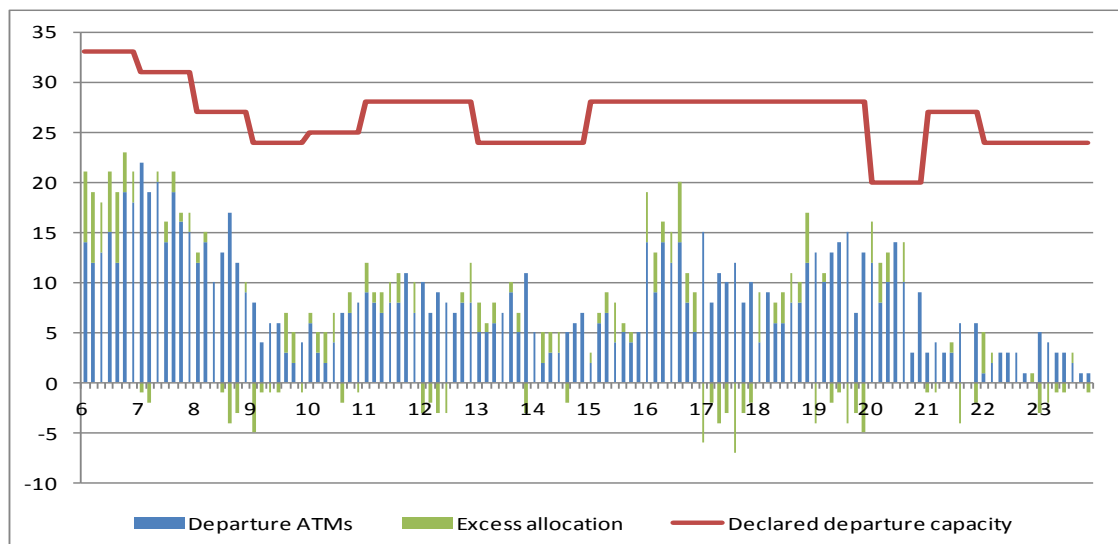
<sup>27</sup> Source: STAL

<sup>28</sup> While the availability of arrival slots is also inevitably relevant, an airline will typically not land at an airport if it cannot subsequently depart.

<sup>29</sup> Summer 2012 is representative of slot utilisation patterns in previous Summer traffic seasons.



**Figure 10: Departure capacity at Stansted Winter 2011/12<sup>30</sup>**



Source: CAA airport statistics, ACL start of season data

Note: Where the excess allocation is negative, this means that operated ATMs exceeded the number of slots allocated in the start of season report.

#### Based low cost carriers

- 2.13 The based operations of Ryanair and easyJet constitute most of Stansted's airline business, both in terms of ATMs and passengers. As such, they require departure slots during the early morning peak for their based aircraft to begin their first daily rotation. For one of their competitors to begin based operations from Stansted, a sufficient number of suitably-timed departure slots would need to be available to accommodate the potential new entrant's projected flights.
- 2.14 Table 2 shows that, on the basis of operated ATMs, there is significant departure slot availability during the early morning departure peak (0600 to 0759 BST) in the last Summer and Winter traffic seasons respectively, with there being more spare capacity during the Winter traffic season. As far as the actual number of ATMs operated is an accurate reflection of actual capacity utilisation, there is departure capacity available during the morning peak in particular during the first hour between 0600 and 0659 BST.

<sup>30</sup> The Winter 2011/12 slot utilisation is representative of slot utilisation patterns in previous Winter traffic seasons.

**Table 2: Number of departure slots available during the early morning peak (0600-0759 UK local time)<sup>31</sup>**

<b>Day</b>	<b>Number of available slots Summer 2012</b>	<b>Number of available slots Winter 2011/12</b>
Mon	22	28
Tue	20	33
Wed	18	31
Thu	23	35
Fri	22	33
Sat	18	29
Sun	29	31

*Source: CAA airport statistics, ACL start of season report*

**However, factoring in the unutilised allocated slots at the start of the season to represent the capacity situation that may be perceived by a potential entrant before the traffic season begins, results in the departure peak appearing fuller than it is in practice during the season. Figure 11 and**

2.15 Figure 12 (below) show that, although there still would remain more than 5 slots available in many cases, ACL start of season data, which may misstate the degree of actual spare capacity due to its forward-looking nature (for reasons discussed in paragraph 2.8), could potentially deter new entrants from basing operations at the airport, though it is unclear to what extent this may occur.<sup>32</sup> It is noted that this effect has the potential to be more detrimental in Summer than in Winter. However, this understatement of available capacity may not be as much of a barrier to expansion of services by Stansted's incumbent based low cost carriers, as they constitute in large part the demand resulting in this excess allocation.

2.16 In addition, alongside the need for sufficient and suitable slots, potential entrants may be influenced by whether, and to what extent, their competitors operate slots at similar times to the slots they would require. Indeed, the strong presence of a competitor could have a deterring effect on potential new entrants, as the resulting competition could make entry relatively less profitable compared to alternatives. It may also affect expansion by incumbent airlines.

**Figure 11 and**

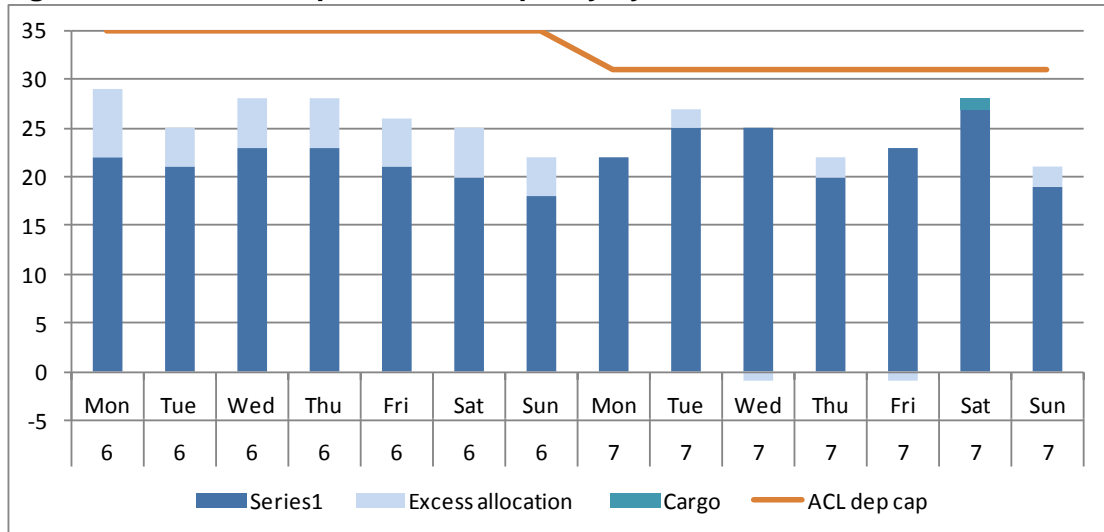
2.17 Figure 12 (below) set out departure slot utilisation during the early morning peak by airline. Of the ATMs operated at Stansted during the early morning peak in the Summer 2012 traffic season, Ryanair departing flights constitute on average 76 per cent of departing ATMs on a given day of the week between 0600 and 0759 BST, while easyJet departures accounted for 19 per cent on average, giving them a collective share of 95 per cent of operated

<sup>31</sup> This table is based on ATMs, so this may overestimate availability compared to allocation totals.

<sup>32</sup> ACL reports are not the sole source of information on slot allocation. Airlines seeking to enter at a particular airport are likely to contact the airport operator directly to ascertain the availability of slots. However, as far as ACL start of season reports may serve as an initial indicator of slot availability, that could add an additional level of risk to an airline's decision to enter at an airport.

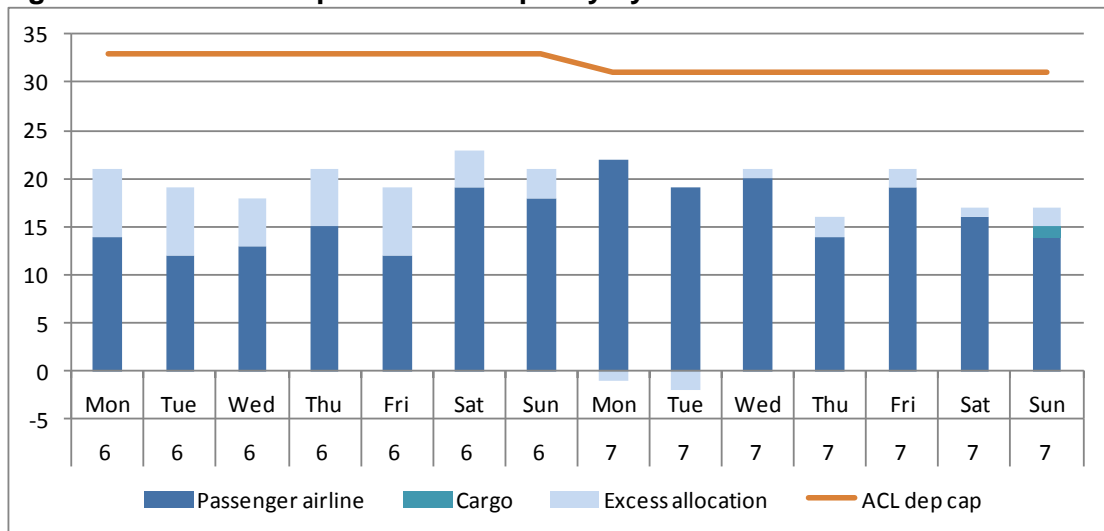
ATMs. Together, these two carriers make up 63 per cent of the airport's declared departure capacity during these hours, for a total average departure utilisation of 67 per cent. Ryanair and easyJet's shares of slot utilisation during morning departure peak at Stansted for Summer 2012 is representative of the shares in the traffic seasons between 2008 and 2012. These figures are similar for the Winter 2011/12 traffic season, which is also broadly consistent with previous traffic seasons, albeit that there is more spare capacity than in the Summer traffic seasons.

**Figure 11: Stansted departure slot capacity by airline Summer 2012**



Source: CAA airport statistics and ACL declared capacity data Summer 2012

**Figure 12: Stansted departure slot capacity by airline Winter 2011/12**



Source: CAA airport statistics, ACL start of season report Winter 2011/12

2.18 It is clear that Ryanair and easyJet have a strong presence at Stansted, operating nearly the entirety of the airport's early morning departures peak period. This strongly suggests that a low cost carrier potentially seeking to begin operations at the airport could be deterred from doing so, in light of the strong direct and indirect competition it would likely face from the incumbent based low cost carriers.

- 2.19 While this type of airline has historically constituted the majority of Stansted's airline business, it is also important to understand the scope for entry at the airport by other types of airlines; for example Air Berlin, a low cost carrier based in Germany, currently operates inbound services into the airport and there are a number of charter operators, as well as a history of discontinuous presence by full service carriers.

#### Inbound low cost carriers

- 2.20 In contrast to Stansted's based low cost carriers, the aircraft of their inbound counterparts typically arrive at the Stansted at the end of their first daily sector and subsequently depart to complete their first rotation. The first inbound arrival wave at Stansted appears to occur during the first hour of the early morning departure peak, with these aircraft departing on their second sector as part of the latter as well. Air Berlin, Stansted's third largest airline in terms of movements, is an inbound low cost carrier, which means that it has a different demand pattern for the airport's slots.<sup>33</sup> Since 2008, Air Berlin seems to have operated four daily waves of arrivals followed by departures, albeit that the number of movements has fallen: in the early morning peak, mid-morning, mid-afternoon, and in the evening. This means that with the exception of its early morning peak arrival and departure, the airline's demand for both arrival and departure slots has primarily been in the off-peak.
- 2.21 Taking the spare slot capacity during the early morning peak and evidence of substantial spare capacity at Stansted outside of the early morning departure peak<sup>34</sup>, the CAA considers that it is clear that there is considerable scope for potential entry by inbound low cost carriers throughout the day. STAL's 2010 strategy document states that inbound airlines are likely to constitute the "primary source of passenger volume growth" due to the relative unavailability of capacity during certain periods of the day.<sup>35</sup> Indeed, Wizz has said that there was sufficient capacity for it to relocate part or all of its services at Luton to Stansted.<sup>36</sup> In addition, STAL claims that the presence of Ryanair is also likely to have a deterring effect on entry decisions by its inbound competitors, which may reduce the likelihood of entry.<sup>37</sup> Indeed, Air Berlin has told the CAA that Ryanair's presence would be a relevant consideration in any decision to expand its operations at Stansted.<sup>38</sup>

#### Charter operators

- 2.22 There are a number of charter airlines that operate from Stansted, including Thomson and Thomas Cook throughout the year, and Monarch during the Winter traffic seasons. These airlines respond to the demand patterns of holidaymakers, which means that their operations are highly seasonal and tend to be concentrated in the Summer traffic seasons, although these airlines also operate a smaller number (and often a different range) of

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<sup>33</sup> Other such carriers at Stansted include Germanwings and Pegasus.

<sup>34</sup> Although there is considerable arrival slot capacity during the early morning peak.

<sup>35</sup> Source: STAL

<sup>36</sup> Source: Wizz Air

<sup>37</sup> Source: STAL

<sup>38</sup> Source: Air Berlin

services during the Winter traffic season. ATM data shows that slot demand by these carriers can include both departure and arrivals during the early morning peak and during the rest of the day. For example, Thomson has two based aircraft at Stansted and the pattern of its ATMs is consistent with the operation of W patterns by at least one of its aircraft.<sup>39</sup> Similarly, Thomas Cook, which currently has one based aircraft at Stansted, emphasised the importance to its based operations of obtaining early morning departure slots and that slot availability during this period was a big issue. It also noted that, to supplement current operations, an alternative could be to use inbound aircraft at later times of day.<sup>40</sup> In addition, to the extent that a proportion of their passengers are price-sensitive and are able to purchase a “dynamic package” as an alternative to a tour operator package, charter operators seem to face some competitive pressure from low cost carriers at Stansted.<sup>41</sup>

- 2.23 The availability of suitable departure slots during the early morning peak, from an average total of 18 between 0600 and 0759 BST at the most conservative estimate, including unused allocated slots, is clearly an important consideration for any entry or expansion by charter carriers seeking to base aircraft at Stansted or to fly into Stansted as part of a W-pattern. However, inbound charter operators who typically require slots outside this period appear likely to be able obtain sufficient suitable slots for their operations.

#### Airlines operating long-haul services

- 2.24 Although there is currently no long-haul service operated to or from Stansted, there have been several instances of such flights. A recent example of long-haul operations was the inbound Air Asia X service between Kuala Lumpur and Stansted, which subsequently moved to Gatwick before being withdrawn due to the worsening of macroeconomic conditions and the impact of Air Passenger Duty.<sup>42</sup> Airlines flying long-haul services would not necessarily require departure slots during the early morning departure peak, and might also have considerable scope to schedule off-peak services. The substantial spare capacity outwith the early morning peak at Stansted suggests there is scope to attract and accommodate long-haul services to the airport, including both based and inbound aircraft operations. Further, STAL has stated that this is one of its objectives with regards to future growth.<sup>43</sup> However, there may be reasons unrelated to the availability of suitable slots that could reduce the likelihood of long-haul carriers operating from Stansted. For example, at least one carrier cited Stansted’s smaller catchment area and lack of history of interlining traffic as reasons against operating at Stansted.<sup>44</sup>

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<sup>39</sup> Source: Thomson Airways

<sup>40</sup> Source: Thomas Cook

<sup>41</sup> Source: [redacted]

<sup>42</sup> Source: <http://www.busesstraveller.com/news/air-asia-x-to-withdraw-gatwick-flights> (accessed January 2013)

<sup>43</sup> Source: Stansted, <http://www.stanstedairport.com/about-us/airport-improvements/the-future> (accessed January 2013)

<sup>44</sup> Source: [redacted]

## Cargo-only carriers

2.25 Cargo-only flights account for 8 per cent of ATMs at Stansted. With the exception of a few departures and arrivals throughout the day from early morning, the majority of cargo-only flights at Stansted appear to occur between 1700 and 0359. As a considerable amount of this period falls outside standard hours of operation for passenger flights, there is considerable spare capacity for additional cargo flights in terms of available slots and relative to the G1 planning cargo-only movement cap of 20,500 ATMs<sup>45</sup>, with the total number of cargo-only ATMs being approximately 9,750 for 2011.

## Aircraft stand capacity

2.26 Aircraft stand capacity is required by airlines for embarkation and disembarkation of passengers and parking between arrival and departure. In particular, the number of aircraft that an airline is able to base at an airport depends in large on the number of available stands at which its aircraft can be parked overnight.

**Table 3: Aircraft parking stand configurations**

Category/Code	Smallest	Largest
<b>Passenger</b>		
C	47	8
D	4	12
E		13
<b>Remote</b>		
C	14	4
D	2	6
<b>Cargo</b>		
C	12	
D	4	2
E		1
F		6
<b>General Aviation</b>		
C	26	6
D	1	7
E		5
<b>All Stands</b>		
C	99	18
D	11	27
E		19
F		6
<b>Total</b>	110	70

Source: STAL

<sup>45</sup> This refers to the Stansted Generation 1 planning application for an increase in capacity at the airport to a maximum of 35 million passengers per annum.

*Note: "Smallest" shows the number of aircraft stands on the basis that each stand area is used by the smallest possible aircraft for which it is designed.  
"Largest" shows the number of aircraft stands on the basis that stands are used by the largest possible aircraft for which it is designed.*

- 2.27 There does not appear to be any aircraft parking stand constraints at Stansted as the current number of based aircraft at the airport during the Summer traffic season (the busiest period for the airport's traffic) appears to be at least 51 (including 39 Ryanair<sup>46</sup>, [8] easyJet<sup>47</sup>, 2 Thomson<sup>48</sup>, 1 Thomas Cook<sup>49</sup>) for a maximum stand capacity of 110 aircraft.<sup>50</sup> Aircraft stand capacity alone would be unlikely to affect airline substitution into the airport. In addition, STAL has told the CAA that it anticipates that it currently has sufficient aircraft stands to be able to handle growth to at least 25 million passengers per annum (mppa), with the amount of investment in stand that will be required being dependent on the nature of traffic growth.<sup>51</sup>

### *Terminal capacity*

- 2.28 As well as suitable runway and aircraft stand capacity, airlines seeking to enter or expand operations at Stansted would also require sufficient capacity in the airport's terminal to handle sufficient additional passengers in order to realise adequate load factors. Figure 13 and Figure 14 show that terminal utilisation is near the declared scheduling limits during 0600 and 0759 BST for departures and during three periods for arrivals: between 1100 and 1259, from 1600 to 1659, and from 2200 to 2359 BST.<sup>52</sup> The terminal hourly scheduling limit for departures in Stansted's sole terminal has been 4,800 passengers per hour for 2008 and 2009 Summer traffic season, increasing to 5,000 passengers per hour in 2010 and 2011. The arrivals limit for domestic passengers has consistently been 750 passengers per hour, while the international passengers limit rose from 3,800 to 3,900 passengers per hour in 2010. Since 2008, the Winter traffic season hourly scheduling limits have been 750 for domestic arrivals and 3,600 international arrivals, and 4,350 departing passengers.

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<sup>46</sup> Source: Ryanair

<sup>47</sup> Source: easyJet

<sup>48</sup> Source: Thomson Airways

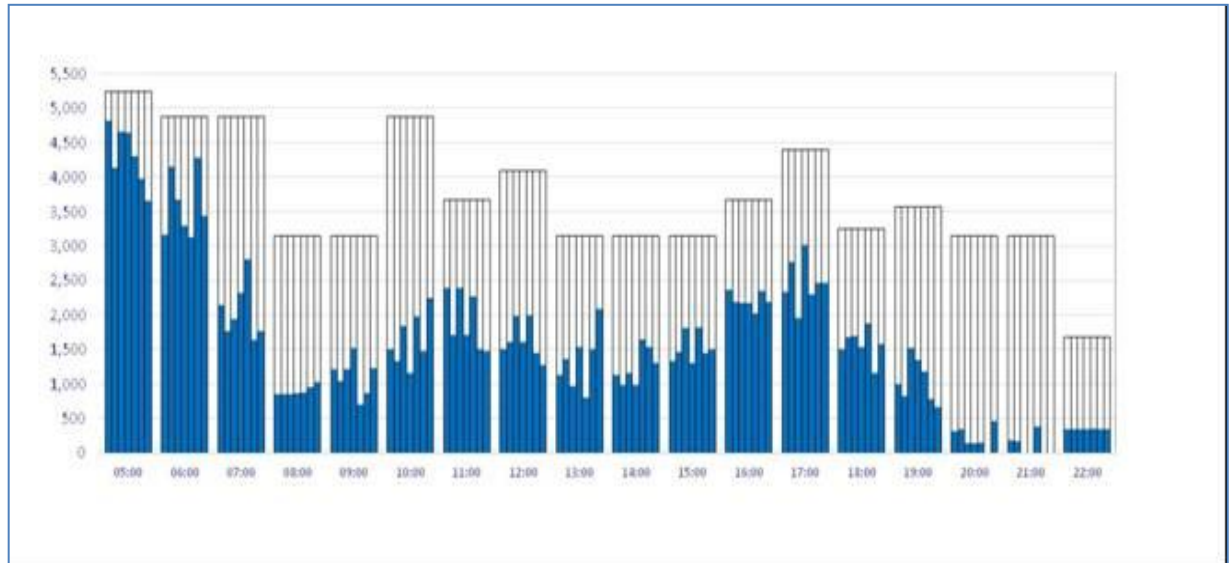
<sup>49</sup> Source: Thomas Cook

<sup>50</sup> Source: STAL

<sup>51</sup> Source: STAL

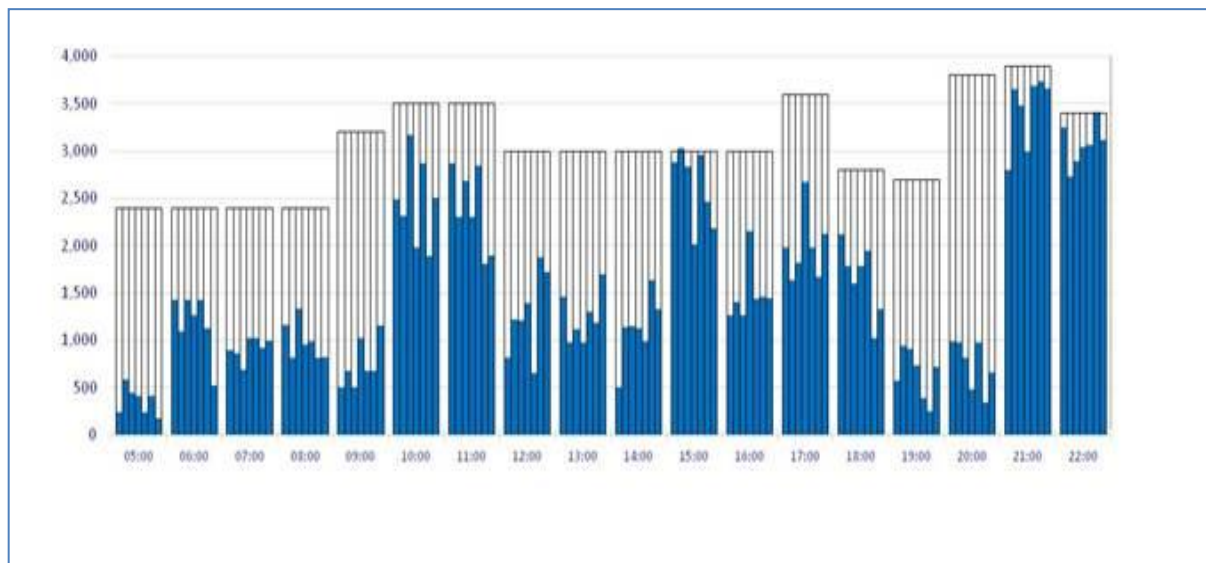
<sup>52</sup> ACL noted that terminal capacity constraints for a particular time period can be somewhat deterministic, as they are a product of the estimated passenger numbers carried on aircraft departing in that time period.

**Figure 13: Total terminal departures at Stansted - Peak week passengers per hour Summer 2012 (UTC)**



Source: ACL start of season report Summer 2012  
 Note: BST is UTC+1.

**Figure 14: Total terminal arrivals at Stansted - Peak week passengers per hour Summer 2012 (UTC)**



Source: ACL start of season report Summer 2012  
 Note: BST is UTC+1.

2.29 Based on terminal hourly scheduling limits, the number of flights which could be operated to carry the additional number of passengers required to reach the scheduling limit for each day of the week was estimated, using Ryanair's average load factor of 82 per cent<sup>53</sup> for their B737-800 fleet at Stansted for the Summer traffic seasons between 2008 and 2012, Table 4 shows these estimates.

<sup>53</sup> The load factors are estimated based on CAA airport statistics.



**Table 4: Number of B737-800 aircraft that could be filled by the difference between actual passengers and scheduling limits during departure and arrival peaks at Stansted Summer 2012<sup>54</sup>**

BST	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Average
	Departures							
0600	1	5	2	2	4	6	8	4
0700	9	3	6	8	9	2	7	6
	Arrivals							
1100	6	7	2	9	4	10	6	6
1200	4	7	0	8	4	10	10	7
1600	0	0	1	6	0	3	5	2
2200	7	1	2	5	1	1	1	3
2300	0	4	3	2	2	0	1	2

Source: CAA Airport Statistics and CAA analysis of ACL start of season report

Note: Results using the average estimated load factor for easyJet produced similar results.

- 2.30 On average, four and six Ryanair flights with their average load factors could be operated during the early morning peak in the hours of 0600-0659 and 0700-0759 BST respectively, which is considerably less than the number of available slots. There appears to be considerable scope for (6 and 7) arrivals in the late morning but terminal capacity is more limited in late afternoon and in the late evening arrival peaks where between 2 and 3 average aircraft's worth of passengers could be processed through the terminal.
- 2.31 Based on the above analysis, it would seem that Stansted's terminal scheduling limits are likely to become binding more quickly than declared runway capacity during certain periods of the day, which includes the early morning departure peak. However, ACL has told the CAA that terminal scheduling limits are to a large degree deterministic, as they are based on the number of passengers on aircraft at a certain point in time. As a result, this would be representative of the flow of passengers through the terminal.<sup>55</sup> Indeed, STAL has said that it is able to expand these scheduling limits to an extent, where required, as it has permission to handle up 35mppa.<sup>56</sup> It added that the terminal scheduling limit provides a useful short-term control within the scheduling system, and acts as an 'early warning system' of the need for investment in additional processing capacity. Further, STAL says that the scheduling limit should not be regarded as fixed, and that it may be possible to revise it upwards at short notice on a case-by-case basis to accommodate slot requests.<sup>57</sup>
- 2.32 Another measure of terminal capacity constraints is the Busy Hour Rate (BHR), which is the number of passengers processed through the terminal in

<sup>54</sup> B737-800s have 189 seats, combined with Ryanair's average 82 per cent load factor according to the CAA's estimates, means that the number in the tables represent the number of aircraft carrying 155 passengers required to carry the number of passengers that can be processed up to the scheduling limits. For easyJet, the analysis was repeated using A320 aircraft with 174 seats and a load factor of 84 per cent, giving 146 passengers.

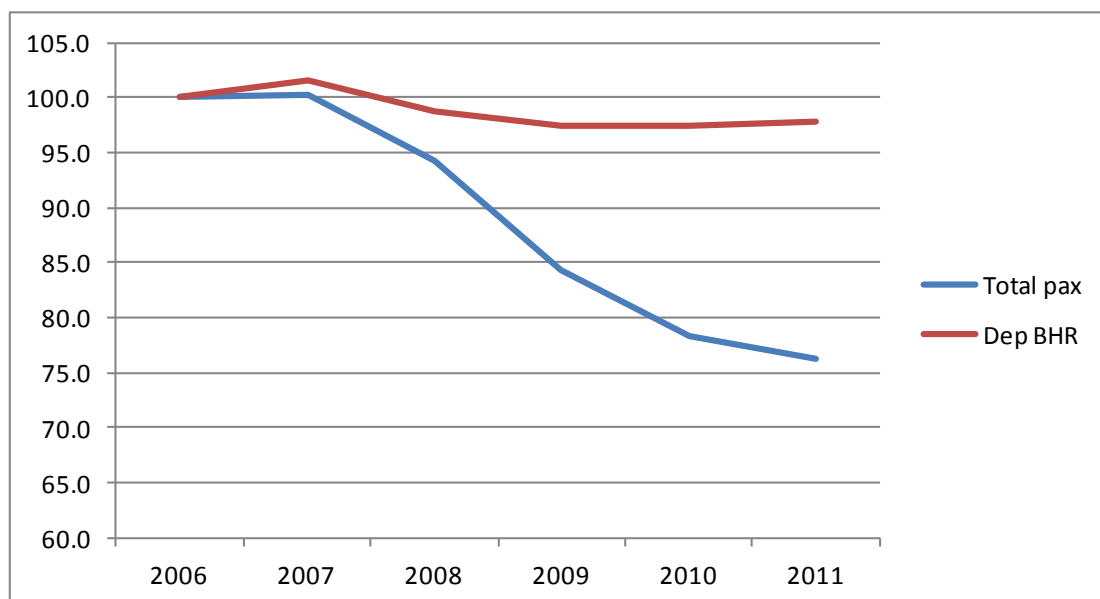
<sup>55</sup> Source: ACL

<sup>56</sup> Source: STAL

<sup>57</sup> Source: STAL

the (marginal) hour during which the cumulative number of passengers exceeds 5 per cent of total passengers. Figure 15 shows that while total passenger numbers have fallen by approximately 25 per cent between 2006 and 2011, the BHR has not fallen significantly. Further, the distribution of passenger flows shows that the number of hours during which between 3,500 and 4,000 and between 4,000 and 4,500 passengers were processed fell by the smallest proportions between 2006 and 2011.<sup>58</sup> This would suggest that, despite handling considerably fewer passengers overall, the peak periods during the day remain busy. Indeed, STAL said that it would have the potential to increase the peak hour processing capacity of the terminal building by at least 50 per cent.<sup>59</sup>

**Figure 15: Changes in total passengers and Busy Hour Rate (BHR)**



Source: STAL  
 Note: Y-axis shows indexed value

### Structure of charges

2.33 One option available to an airport operator to manage airline demand for its capacity is to vary its charges between what it establishes to be peak and off-peak times of airline activity. STAL does not currently have such a policy, and has never formally considered one, although it said that it has had the opportunity to implement one.<sup>60</sup> It says in its response to the CAA’s Initial Views that it has not sought to introduce peak and off-peak pricing “largely because there is spare capacity available even at the busiest times of day” and that Stansted has “strong incentives to price competitively to attract additional based aircraft at the airport during peak periods, given the possibility that such aircraft will operate multiple rotations during the day”. It added that “there are strong incentives for the airport to offer aggressive discounts for growth at all times of day, not just in off-peak periods.” This could potentially make the airport more attractive to airlines seeking to

<sup>58</sup> Source: STAL  
<sup>59</sup> Source: STAL  
<sup>60</sup> Source: STAL

operate during the off-peak times of day, while not disincentivising airlines from seeking peak period slots. However, Ryanair says that STAL's "high and inflexible" charges during the Winter traffic season have resulted in the airline grounding a number of aircraft. In light of this, it could be that STAL's current structure and level of charges in the Winter traffic season may be dissuading potential new entrants.<sup>61</sup>

#### *Plans for future capacity expansion*

2.34 Although capacity constraints are not binding during any period of the day at Stansted, the airport has a number of plans for expanding capacity to reach its maximum cap of 35mppa, set under the G1 planning application approved by the Secretary of State for Transport. There is no investment required for the airport's single runway to reach full capacity, though limited taxiway, stand and pier development would be required to handle upwards of 25mppa. Regarding terminal capacity, STAL says that the existing terminal capacity is potentially capable – depending on technology-driven change in airline procedures and security requirements – of handling 35mppa, and that further terminal development is unlikely to be required until passenger levels reach 30mppa.

#### **Summary**

- 2.35 Stansted's main airline business consists of based low cost carriers, for which the early morning peak is a key period as they aim to maximise aircraft utilisation. The airport also has a number of inbound low cost carriers, based and inbound charter operators, and cargo-only airlines operating at it.
- 2.36 The period of most concentrated airline activity occurs during the early morning in the Summer traffic season, as based carriers depart from the airport. There is, however, some departure capacity during the early morning peak, and a considerable amount of departure and arrival slot capacity across the rest of the day.
- 2.37 Slot utilisation is higher during the Summer traffic season than during the Winter traffic season, though the utilisation pattern remains similar.
- 2.38 Taken together, this information suggests that there is some scope for new based operations by new or incumbent low cost carriers or other airlines requiring slots during the early morning departure peak.
- 2.39 Inbound airlines, in particular outside the early morning departure peak, are likely to have more scope to enter or expand operations at Stansted. This is also the case for based airlines that require slots outside of the early morning departure peak. Further, there are currently no binding aircraft parking stand departure capacity constraints. These findings also hold for the Winter traffic season, and to a larger extent given the greater available capacity, though this in part reflects the general trend across most airports of lower demand during this traffic season due to lower passenger demand and so may not be expected necessarily to increase markedly the scope for switching to the airport in practice.

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<sup>61</sup> Source: Ryanair

- 2.40 Stansted does not appear to be approaching binding terminal capacity limits overall, although the passenger flows are higher at certain periods of the day, such as the early morning peak. Although in the short term recovering passenger numbers may mean that passenger flows approach the scheduling limits, the airport operator is likely to be able to expand terminal capacity to accommodate additional passengers to fill runway capacity.
- 2.41 In addition to the existing spare capacity at Stansted, the airport operator has a number of capacity expansion plans – linked to taxiway, terminal and stand capacity – plans which would need to be implemented when passenger traffic reaches (depending on the project) 25, 30 or 35mppa.

### 3. Capacity constraints at other London airports

#### Introduction

3.1 The previous chapter analysed how the level of capacity utilisation at Stansted might affect airline substitution to the airport and the extent to which the airport operator might be able to attract new airline traffic, through potential entry by other airlines and expansion by incumbents. Capacity constraints at other London airports may conversely affect the ability of airlines to switch away part or all of their operations from Stansted, thereby potentially limiting the extent to which the airport's incumbent airlines are able to make credible threats to relocate operations to constrain the airport operator's behaviour. This chapter considers the extent of capacity constraints at Luton and Gatwick, selected as the most likely substitutes for Stansted's airlines and how far they may have scope to switch marginal services away from Stansted. Account is also taken of the potential for Southend to act as a viable alternative airport for airlines at Stansted.

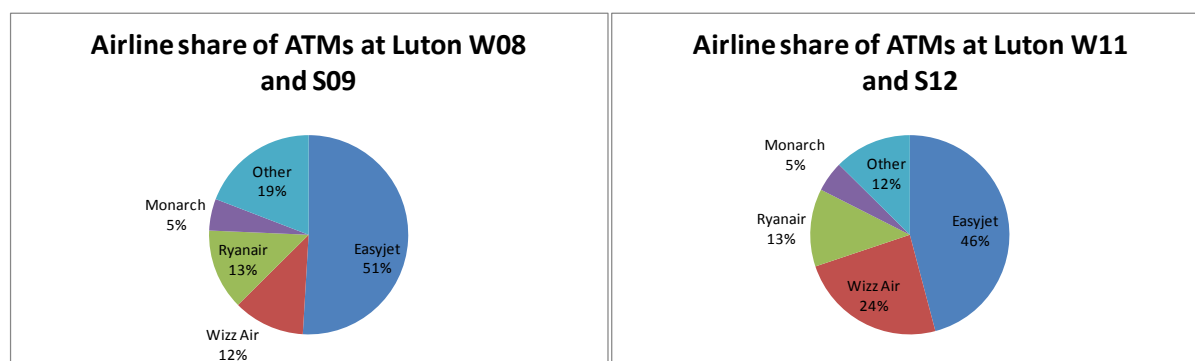
#### Luton

##### Main airlines

3.2 Luton is the fifth largest UK airport, with 9.5mppa in 2011. Compared to Stansted the number of ATMs at Luton has remained relatively stable between 2005 and 2011: there has been a net fall from 75,424 to 72,138 ATMs, although traffic at Luton reached a pre-recession peak of 85,661 ATMs during this period.

3.3 Luton's business profile is similar to Stansted's in terms of its largest airlines. Figure 16 shows that low cost carriers have consistently constituted upwards of 75 per cent of ATMs at Luton. In particular, the airport is a significant base (16 aircraft) for easyJet. In addition, Wizz Air has a substantial inbound operation to the airport. There are also a number of charter and long-haul carriers, as well as general aviation and cargo-only carriers, which make up the remainder of airline activity at Luton.

Figure 16: Airline shares of ATMs at Luton

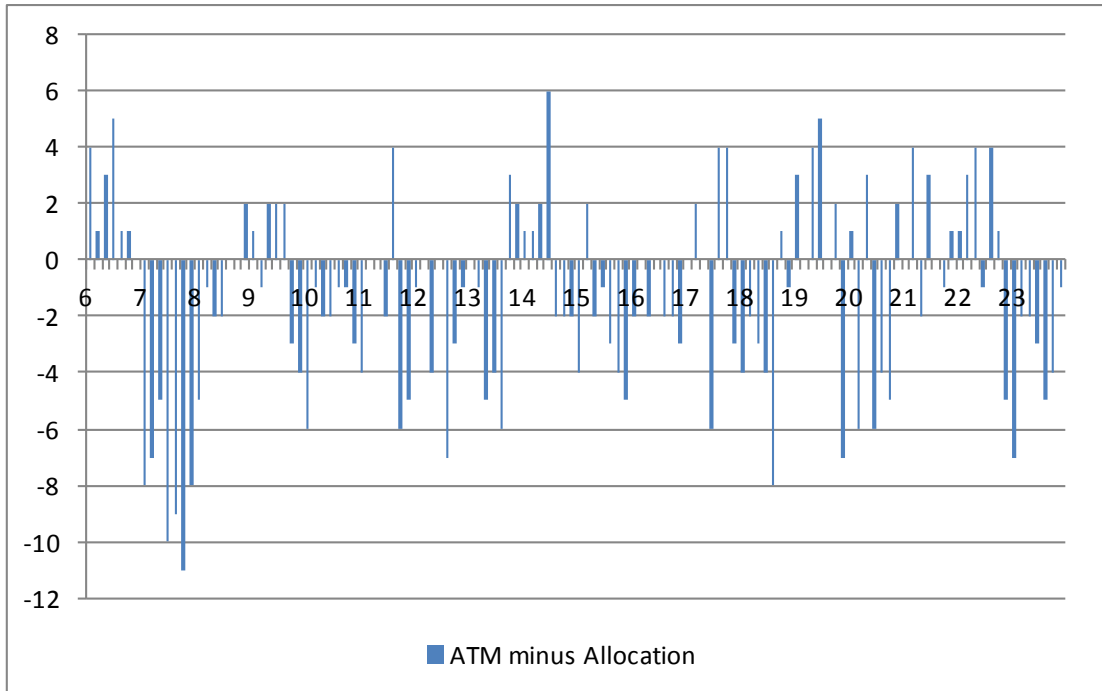


Source: CAA airports statistics

### Runway capacity

- 3.4 Overall, allocated capacity at Luton has increased by 1 per cent across the Summer between 2008 and 2012, and fell from 37 per cent in 2008 to 34 per cent in the Winter 2011/12 season. However, as
- 3.5 Figure 17 shows, there is a significant difference between the number of slots allocated and the actual number of ATMs, particularly in the early morning peak (0600-0759 BST). Possible reasons for this disparity are those discussed in paragraph 2.8.

**Figure 17: Difference between weekly ATMs and ACL allocated slots Summer 2011**

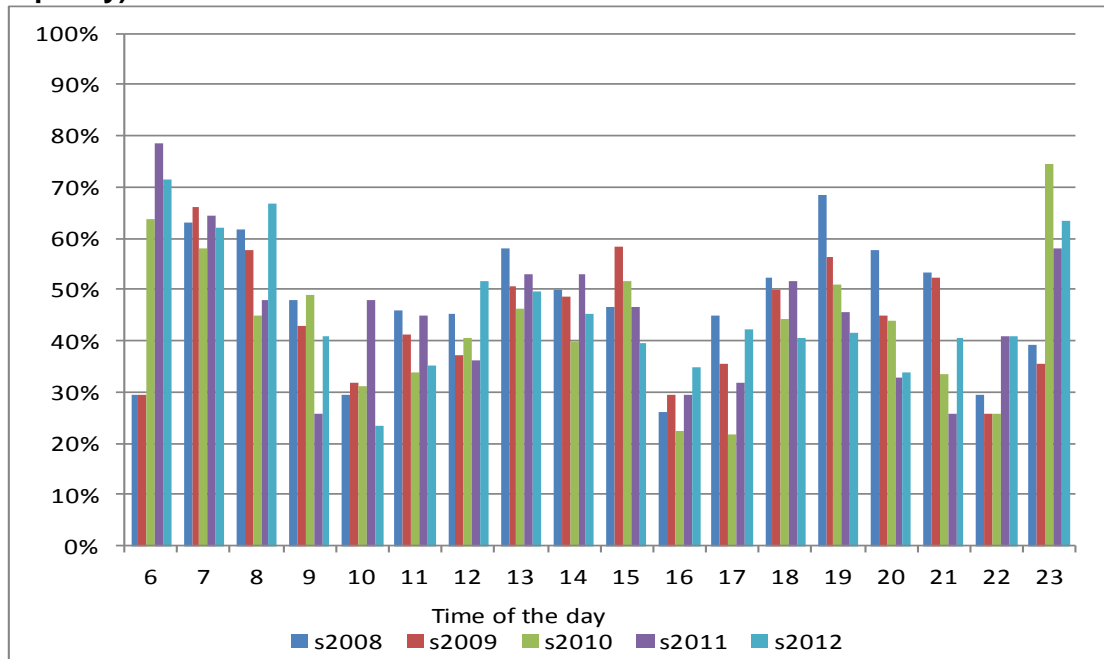


Source: CAA airport statistics and ACL start of season report Summer 2011

- 3.6 The substantial difference between operated and allocated slots shows that analysing the actual ATMs relative to the declared capacity could give a more accurate picture of actual capacity constraints at Luton, as it reflects more accurately the level of airline operations. Shown in Figure 18 and Figure 19 below, the patterns of ATMs at Luton is similar to that at Stansted with the most concentrated period of airline movements occurring during the early morning departure peak, which reflects the significant presence of low cost carriers.<sup>62</sup> Outside of this period, the proportion of slots utilised during the Summer traffic season in very few cases exceeds 50 per cent. Despite some fluctuations over time, the overall pattern remains the same. Again, the level of airline activity is lower during the Winter traffic seasons compared to the Summer traffic seasons.

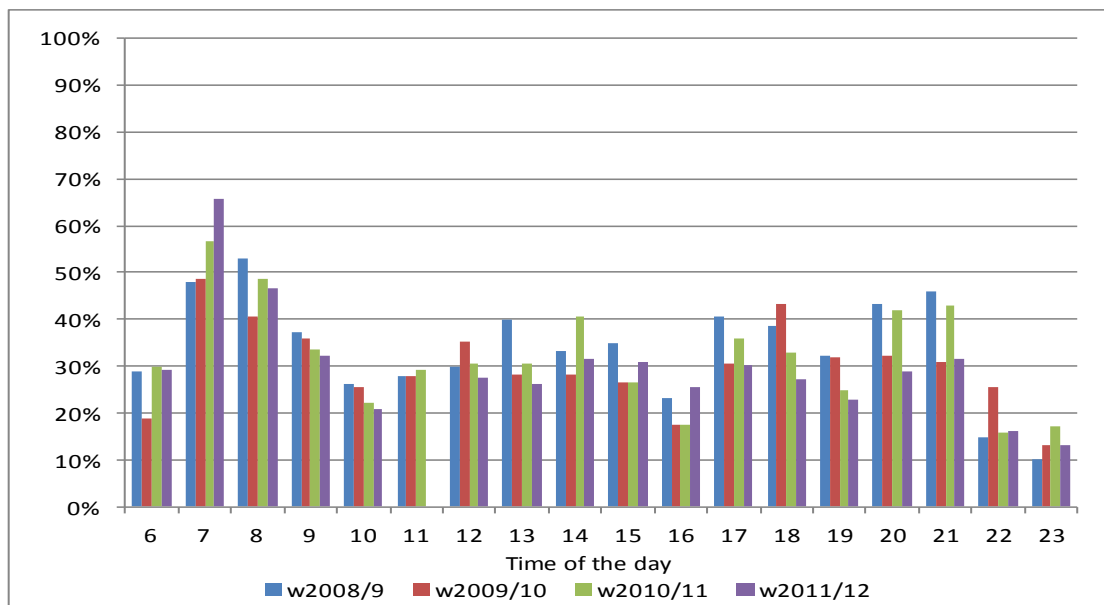
<sup>62</sup> Although Figure 18 suggests a considerable increase in utilisation during certain hours, for example between 0600-0659 BST and 2300-2359 BST, the percentage increase reflects the changes in declared capacity by the airport during such hours. As declared capacity is a function of slot demand, expected delays and airspace constraints (among others), the lowering of the declared capacity broadly reflects the actual level of slot utilisation (ATMs) during these hours.

**Figure 18: Slot utilisation per week Summer 2008-2012 (ATM/ACL declared capacity)**



Source: CAA airport statistics and ACL declared capacity data

**Figure 19: Slot utilisation in Winter 2008/09-2011/12 (ATM/ACL declared capacity)**



Source: CAA airport statistics and ACL declared capacity data

### *Capacity constraints and airline switching*

- 3.7 The willingness and ability of Stansted's incumbent airlines to switch to Luton depends in part on the availability of a sufficient number of suitable slots, in particular suitably-timed departure slots, to support the relocated operations.

#### The early morning departure peak

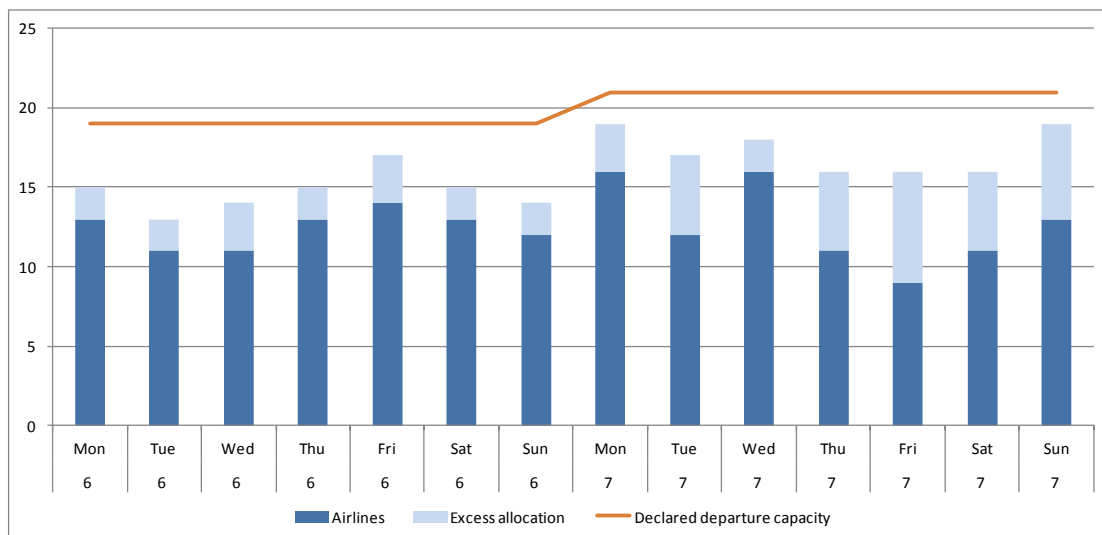
- 3.8 Ryanair and easyJet constitute approximately 80 per cent of Stansted's traffic in terms of ATMs. Based on their significant presence, the ability of these airlines to switch away from Stansted at the margin could significantly constrain the airport operator's average pricing (but would not necessarily prevent excessive pricing to other airlines, due to the ability of airport operators to potentially price discriminate). To the extent that Luton is seen as a viable substitute to Stansted, the availability of early morning departure slots would be an important determinant of the likelihood of such switching.
- 3.9 Similarly, the availability of a sufficient number of suitable departure slots could make it feasible for charter operators at Stansted to relocate based aircraft. In addition, inbound carriers at Stansted (for example Air Berlin and inbound charters) could find a sufficient number of suitable (arrival and) departure slots to move their early morning inbound wave to Luton.

**Figure 20 shows that, based on the measure of slot allocation and utilisation, there remains some capacity during the early morning peak period at Luton during the Summer traffic season, albeit potential entrants could perceive capacity to be scarcer when considering the allocation data.**

- 3.10 Figure 21 shows that there is considerable spare capacity during the early morning peak during the Winter traffic season, on either measure of capacity. On average, there are 15 daily departure slots available in the Summer traffic season during the early morning peak, between 0600 and 0759 BST, and 49 in the Winter traffic season.
- 3.11 As both easyJet and Ryanair currently operate from Luton, it is conceivable that, solely on the basis of slot availability during the morning peak, these airlines might be able to move marginal services or based aircraft to Luton to supplement their existing operations. Similarly, it seems plausible that based charter operators at Stansted might also be able to relocate aircraft.
- 3.12 In addition, inbound carriers at Stansted (for example Air Berlin and inbound charters) could find sufficient suitable departure slot availability to move their early morning inbound wave to Luton airport.

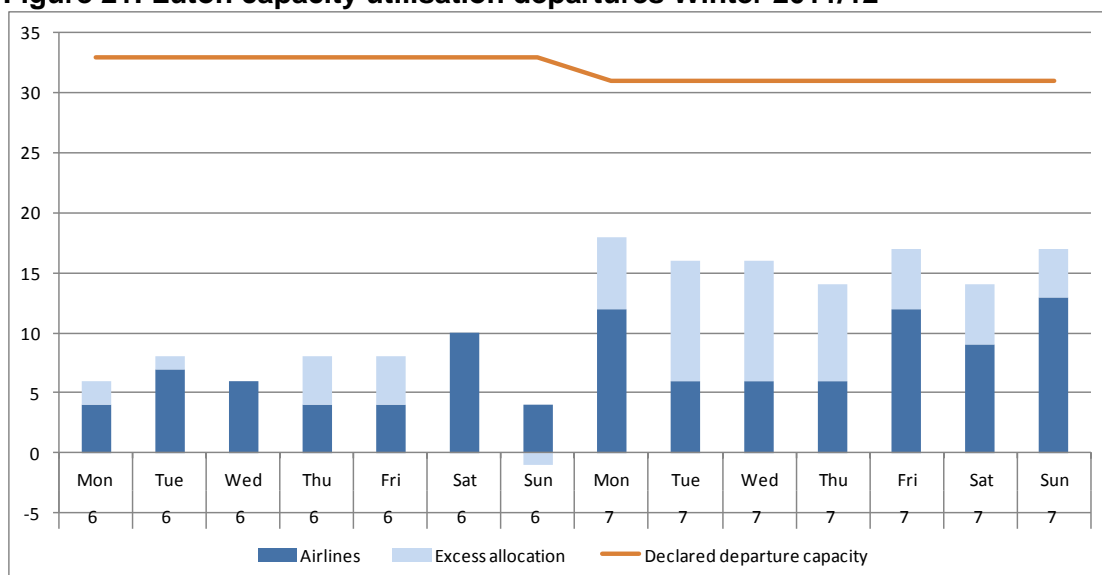


**Figure 20: Luton capacity utilisation departures Summer 2012**



Source: CAA airport statistics and ACL declared capacity data

**Figure 21: Luton capacity utilisation departures Winter 2011/12**



Source: CAA airport statistics and ACL declared capacity data

**Off-peak period**

3.13 A number of airlines at Stansted operate principally during the off-peak departure period, which covers the rest of the day outside the early morning peak. Carriers flying off-peak based or inbound services seeking to switch away marginal services from Stansted would then require sufficient and suitable departure (as well as arrival) slots during the hours following the early morning departure peak.

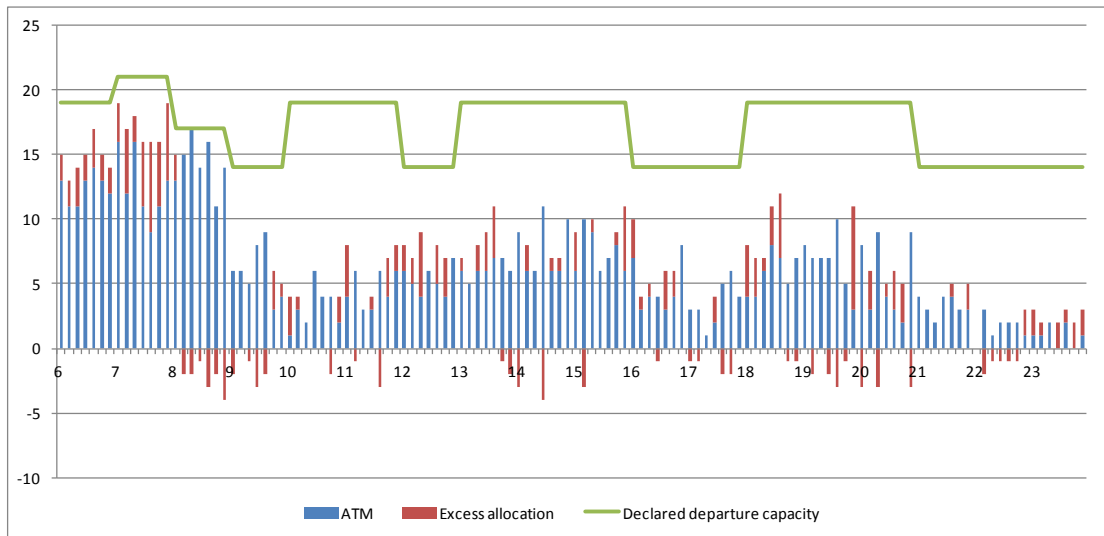
3.14

**Figure 22 and**

3.15 Figure 23 show the departure slot allocation and utilisation across the day for the Summer 2012 and Winter 2011/12 traffic seasons. It is notable that, in contrast to Stansted, the volume of early morning departures is substantial

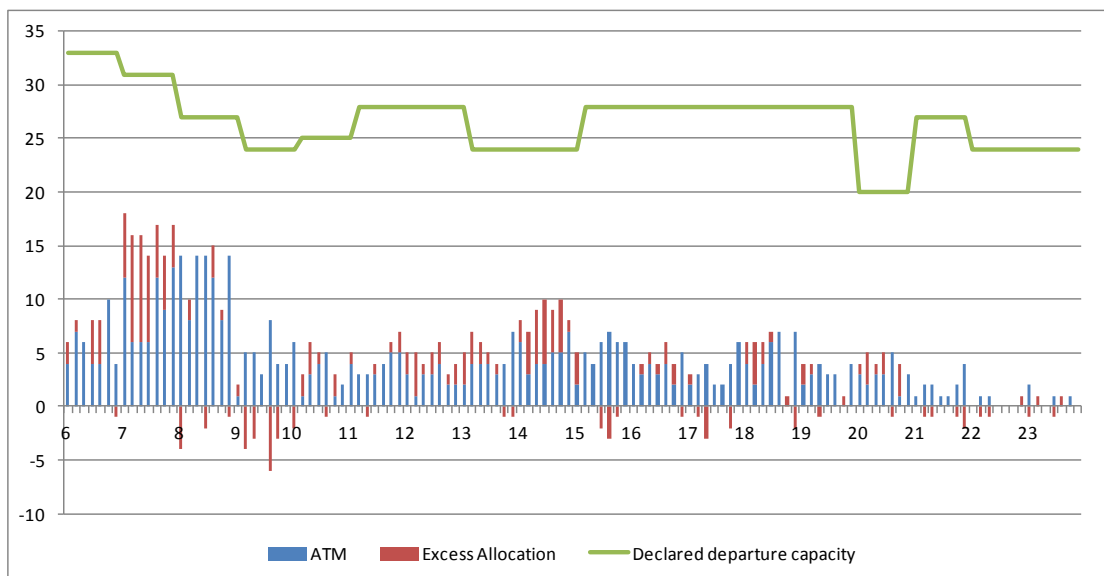
into the third hour of the day, between 0800 and 0859 BST. These movements represent primarily departures by Wizz Air aircraft which arrived earlier in the morning, showing that inbound low cost carrier activity is more substantial at Luton than at Stansted.

**Figure 22: Departure slot allocation and utilisation at Luton Summer 2012 (BST)**



Source: CAA airport statistics and ACL declared capacity data  
 Note: Where the excess allocation is negative, this mean that operated ATMs exceed the number of slots allocated in the start of season report.

**Figure 23: Departure slot allocation and utilisation at Luton Winter 2011**



Source: CAA airport statistics and ACL declared capacity data  
 Note: Where the excess allocation is negative, this mean that operated ATMs exceed the number of slots allocated in the start of season report.

3.16 Looking at the remainder of the day, it is clear that the proportions of allocated and utilised slot rarely exceed 50 per cent during the Summer traffic season, while there is further spare departure capacity in the Winter traffic season. On the basis of runway capacity alone, it therefore appears that

there is substantial scope for based<sup>63</sup> or inbound airlines requiring off-peak slots to potentially constrain STAL by relocating marginal services to Luton.

#### *Aircraft stand capacity*

- 3.17 As well as sufficient and suitably-timed slots, airlines seeking to switch away based aircraft from Stansted to Luton would require a sufficient number of aircraft parking stands at appropriate times. This is also a relevant consideration for inbound airlines whose business models do not involve a quick turnaround time and may therefore need to park aircraft for a number of hours during the day.
- 3.18 Luton currently has 30 available aircraft parking stands, with 3 additional stands as contingency to accommodate unexpected movements, operational spare aircraft and aircraft visiting the airport for maintenance.<sup>64</sup> Stand demand is driven primarily by the number of based aircraft. According to its September 2012 Masterplan, 71 per cent of Luton's passengers were carried on aircraft based at the airport, with the remaining 29 per cent flown on inbound aircraft.<sup>65</sup> Although modelling commissioned by London Luton Airport Operations Limited (LLAOL) suggested that the current stand capacity is "sufficient, with careful scheduling, to support the runway capacity", it also appeared "reasonable to conclude that the current stand demand [sic] is unlikely to be sufficient to accommodate significant growth in runway demand if driven by an increased number of aircraft requiring overnight parking".<sup>66</sup>
- 3.19 In particular, the stand layout was found to be sensitive to the arrival of aircraft operating off-schedule, in particular during the early morning peak departure period. Peak demand for aircraft parking stand at Luton occurs in the hour preceding the start of the early morning departure peak. During the first hour of the departure peak, a sufficient number of based aircraft are scheduled to depart so that arriving aircraft can be accommodated on vacated stands. However, if these inbound aircraft arrive early, they would be unable to access their designated stand. Further, in the absence of alternative taxi routes, they would be required to be held on the taxiway, which would effectively block the entire taxiway network at the airport.<sup>67</sup>
- 3.20 This analysis of aircraft stand capacity constraints is consistent with comments made to the CAA by a number of airlines<sup>68</sup>, [3<]<sup>69</sup>, and these constraints are likely an important barrier to switching to Luton for airlines seeking to relocate a number of their aircraft based at Stansted, beyond

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<sup>63</sup> This is unlikely to be true of low cost carriers, but could be relevant for based charters flying longer sectors.

<sup>64</sup> Source: Leigh Fisher report for London Luton Airport Operations Limited, May 2012, p.6 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/2707/dft-2012-22-capacity-analysis.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/2707/dft-2012-22-capacity-analysis.pdf) (accessed January 2013)

<sup>65</sup> Source: LLAO Masterplan, September 2012, p.32 <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed January 2013)

<sup>66</sup> Source: LLAO Masterplan, September 2012, p.8 <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed January 2013)

<sup>67</sup> Source: Leigh Fisher report for Luton Airport Operations Limited, May 2012, p.6 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/2707/dft-2012-22-capacity-analysis.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/2707/dft-2012-22-capacity-analysis.pdf) (accessed January 2013)

<sup>68</sup> Source: Wizz Air and [3<]

<sup>69</sup> Source: STAL

runway capacity constraints. In addition, it could potentially deter Stansted's inbound low cost carriers from switching to Luton due to the possible congestion that can arise from their flights arriving ahead of their scheduled slot. However, aircraft stand capacity may be sufficient to accommodate additional inbound services outside of the peak hours.

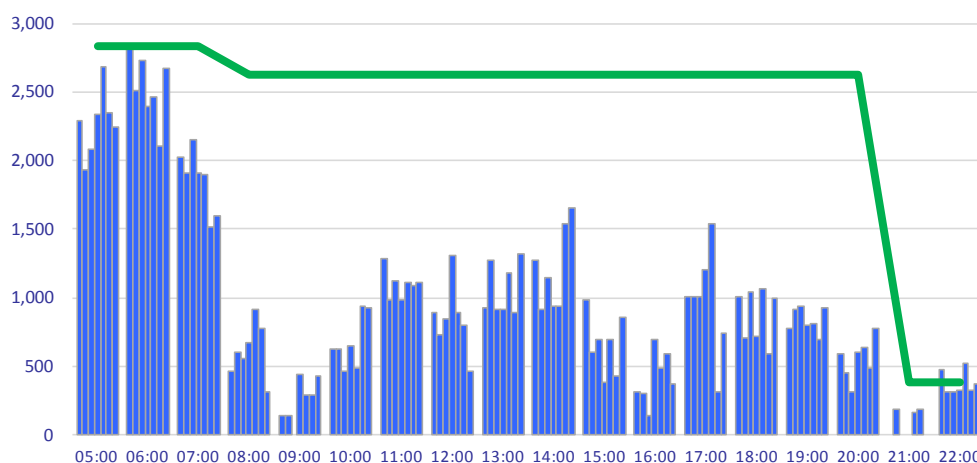
*Terminal*

3.21 Luton's terminal scheduling limit is 2,840 departing passengers per hour, and 2,170 international and 600 domestic arriving passengers per hour. Declared terminal capacity is set for operational reasons and is largely a reflection of the estimated volume of planned passenger traffic based on slot allocation, the level of passenger utilisation can still serve as an indication of the density of passenger flows each hour of the day for a particular traffic season.

3.22

3.23 Figure 24 shows that the current level of passenger flow through the morning peak is close to the departures scheduling limit capacity of the terminal, while being at most half of the scheduling limit for the remainder of the day. In addition, arrival passenger flows are at scheduling limit between 0600 and 0659 UTC, which would appear to coincide with the arrival of flights from inbound low cost carriers (such as Wizz Air).<sup>70</sup> On this basis, it seems that Luton could also be subject to terminal capacity constraints during the early morning peak.

**Figure 24: Luton total terminal departure passengers per hour Summer 2012 (UTC)**



Source: ACL start of season report, Summer 2012  
 Note: BST is UTC+1.

<sup>70</sup> See ACL start of season report Luton, Summer 2012.

**Table 5: Number of B737-800 aircraft that could be filled by the difference between actual passengers and scheduling limits during departure and arrival peaks at Luton Summer 2012**

BST	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	Average
0600	3	5	4	3	1	3	3	3
0700	0	2	0	2	2	4	1	2

Source: CAA Airport Statistics and CAA analysis of ACL terminal scheduling data from start of season report Summer 2012

Note: BST is UTC+1

- 3.24 Table 5 suggests that, for the current hourly terminal scheduling limits, Luton has relatively limited terminal capacity during the early morning peak, which suggests that it might not be possible to handle a sufficient number of passengers to make use of all the available runway capacity during the early morning peak, in the absence of any increase in terminal capacity though the CAA notes that terminal scheduling limits are not necessarily the actual capacity limits of the terminal.

*Peak pricing*

- 3.25 According to Luton’s Conditions of Use 2012/13, the airport operator does not undertake a strategy of differential pricing to manage slot capacity.

*Plans for future expansion*

- 3.26 LLAOL published an updated Masterplan in September 2012, setting out for consultation its plans for expansion. Alongside improvements to roads and surface access, the airport operator proposed a number of improvements to the terminal and runway infrastructure.
- 3.27 Construction of new and the expansion of existing taxiways are planned to enable better use to be made of the runway, increasing peak runway movements from 34 in Summer 2011 to 40 ATMs<sup>71</sup> by 2031. To ease aircraft parking stand capacity constraints, an additional 15 stands are proposed, of which 10 appear to be remote stands.<sup>72</sup> In addition, the Masterplan claims that the runway could accommodate “an even bigger airport”, but says that is not feasible within current land boundaries.<sup>73</sup>
- 3.28 Turning to terminal capacity, it is proposed that this will be expanded by a number of measures, including bringing currently unused parts of the terminal building into active use, extending the front of the terminal building, and the construction of additional gates in a southern ‘pier’. Lastly, the internal layout of the terminal would be altered to create a “more logical route for passengers through the terminal”.<sup>74</sup>

<sup>71</sup> Source: LLAOL Masterplan, p.32 <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed 7/10/2012)

<sup>72</sup> Source: LLAOL Masterplan, p.30 <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed 7/10/2012)

<sup>73</sup> Source: LLAOL Masterplan, p.19. <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed 7/10/2012)

<sup>74</sup> Source: LLAOL Masterplan, p.26 <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed 7/10/2012)

## Summary

- 3.29 Luton has a similar airline mix to Stansted, though the airport also has a number of airlines operating long-haul services. The availability of departure slots during both the early morning peak and the off-peak period would suggest that both based low cost carriers, which constitute most of Stansted's airline business, and other based and inbound carriers might have scope to move marginal aircraft or services to Luton from Stansted. However, there are currently binding aircraft parking stand capacity constraints which means that no more aircraft can currently be based at the airport, as well as potentially leading to taxiway congestion if inbound early morning arrivals were to arrive off-schedule. Terminal capacity limits could also become binding during the early morning peak.
- 3.30 To address this, the airport operator's current Masterplan sets out plans to expand the number of aircraft stands and increase the maximum declared runway capacity, which could in the medium-term expand capacity during the early morning peak and the scope for airlines to increase their number of based aircraft which they could switch away from Stansted. Projects to expand terminal capacity have also been put forward.

## Gatwick

### Main airlines

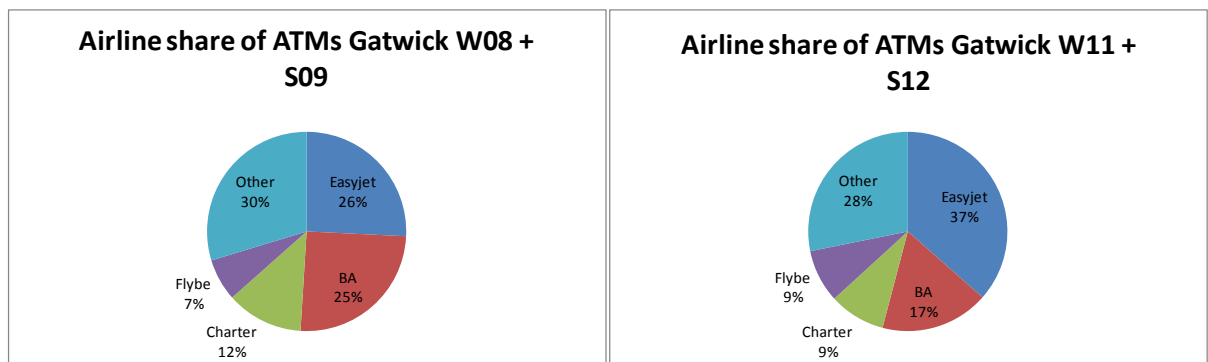
- 3.31 In contrast to both Stansted and Luton, Gatwick has a more varied airline customer base. As Figure 25 shows, easyJet has the largest share of ATMs at Gatwick, followed by British Airways, charter operators (including Thomson, Thomas Cook and Monarch) and Flybe. Notably, easyJet's share of ATMs has grown by approximately 11 per cent between 2008 and 2012, while British Airways' share has fallen by 8 per cent. This in part reflects the growth in the number of easyJet's based aircraft, with currently [8<]<sup>75</sup> of its total fleet of 204<sup>76</sup> flying from Gatwick. In contrast to both Stansted and Luton, a considerable proportion (approximately 15 per cent) of Gatwick's traffic consists of (mostly point-to-point) long-haul services. The remainder of Gatwick's ATMs are operated by a mix of short- and long-haul airlines.

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<sup>75</sup> Source: ACL

<sup>76</sup> Source: easyJet, 2012 full year investor presentation, <http://corporate.easyjet.com/~media/Files/E/Easyjet-Plc-V2/pdf/investors/results-centre/2012/2012-full-year-results-pres.pdf>

**Figure 25: Airline share of ATMs at Gatwick**

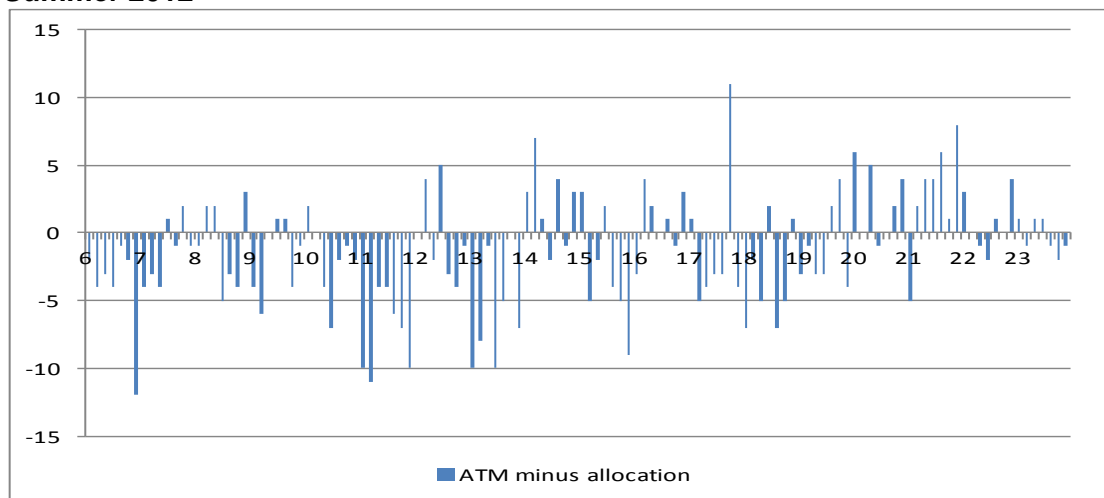


Source: CAA Airport Statistics

### Runway capacity

3.32 Overall, slot allocation at Gatwick has fallen from 94 per cent to 87 per cent (2 per cent year-on-year until 2011 and unchanged between 2011 and 2012) in Summer traffic seasons between 2008 and 2012, while also falling in the Winter traffic seasons from 87 per cent to 75 per cent with a notable decline of 10 per cent between Winter 2010 and 2011. As with Stansted and Luton, there can be a considerable difference in slot allocation and utilisation for a given hour.

**Figure 26: Difference between actual ATMs and ACL weekly slot allocation Summer 2012**



Source: CAA airport statistics, ACL start of season report Gatwick Summer 2012

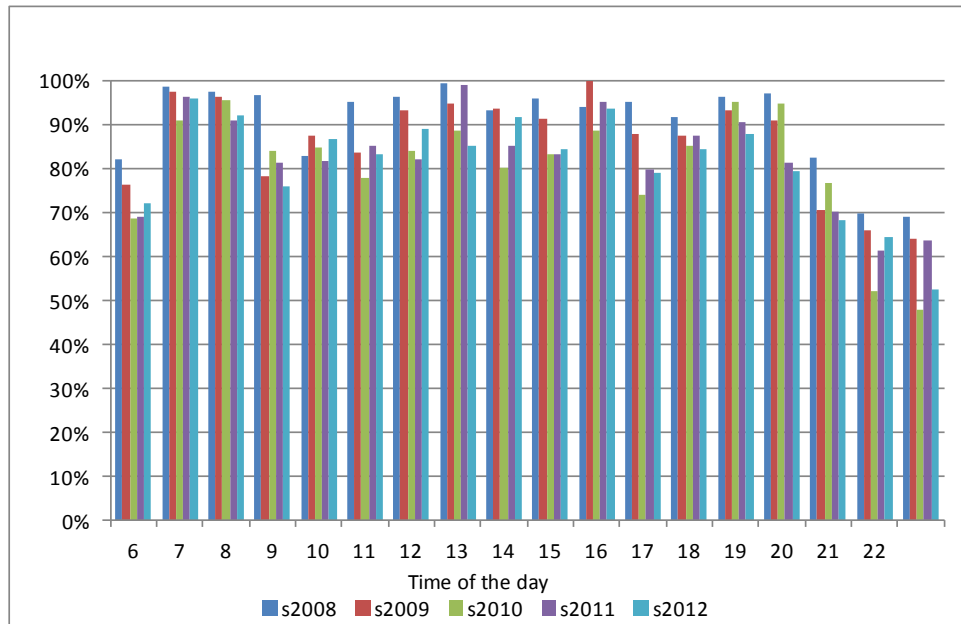
3.33 Unlike Stansted and Luton, slot utilisation remains high at Gatwick throughout the day, which reflects the latter's more diverse airline customer base and consequently different slot demand patterns. This has consistently been the case, for example between 2008 and 2012 as shown in Figure 27 and

3.34 Figure 28. Figure 27 shows that runway slot utilisation at Gatwick has remained above 80 per cent in all but the first and last three hours of the day during the Summer traffic season between 2008 and 2012.

3.35

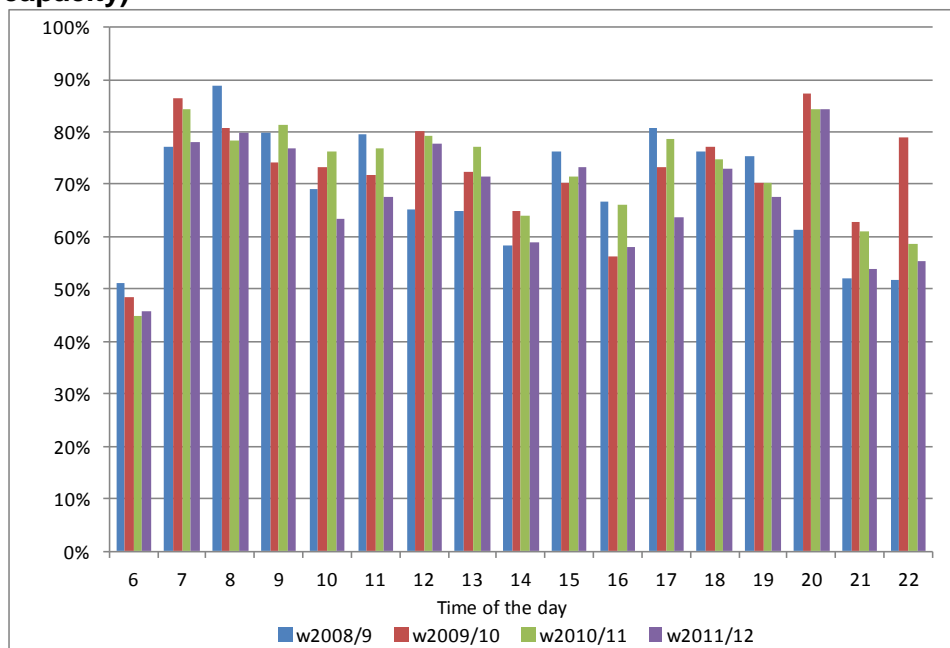
3.36 Figure 28 shows a similar slot utilisation pattern for the Winter traffic seasons although at lower levels of movements.

**Figure 27: Slot utilisation per week Summer 2008-2012 (ATM/ACL declared capacity)**



Source: CAA airport statistics and ACL declared capacity data

**Figure 28: Slot utilisation per week Winter 2008/09-2011/12 (ATM/ACL declared capacity)**



Source: CAA airport statistics and ACL declared capacity data

### Capacity constraints and airline switching

3.37 The preceding section shows a high proportion of slot utilisation at Gatwick, when considering the total declared capacity which includes the limits for both arrivals and departures. This section considers the extent of spare



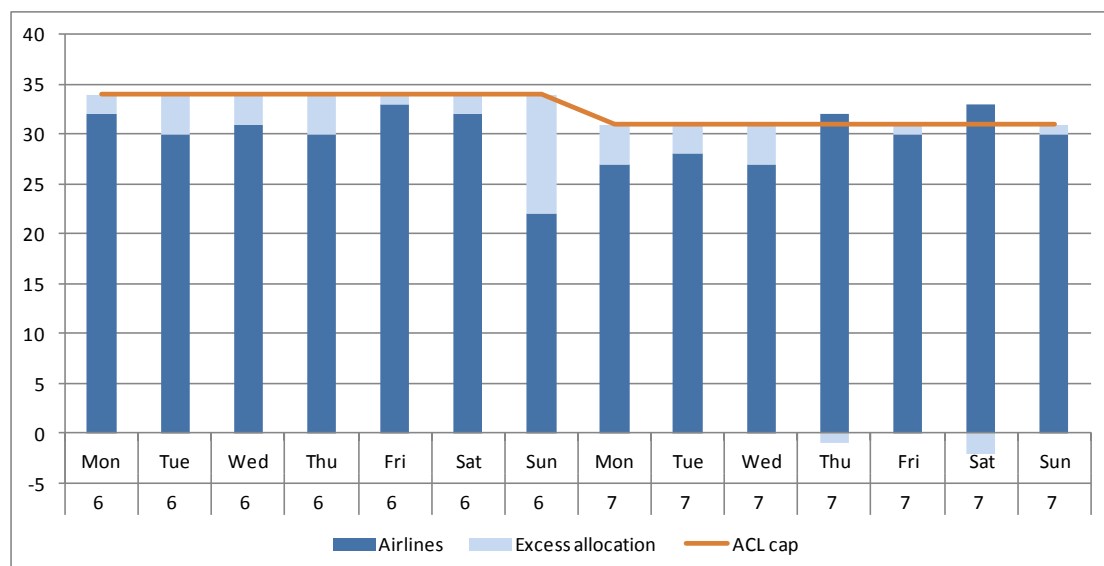
departure capacity available to accommodate potential substitution by airlines away from Stansted.

### The early morning peak

3.38 Available departure capacity during the early morning peak appears to be very limited, as Figure 29 shows. Based on actual operated ATMs, there are a very small number of available slots in a given hour during the Summer 2012 traffic season (a maximum of 8 on Sunday) which could be used by aircraft re-based at Gatwick from Stansted. Including excess slot allocation, which shows the capacity situation that a potential new entrant may perceive at the start of a season on the basis of ACL reports, there does not appear to be any available departure capacity during the Summer 2012 traffic season. However, there is considerably more capacity available during the Winter traffic season.

3.39 On the basis of available early morning departure slot capacity, there would not appear to be capacity available for a substantial switch to Gatwick by an airline (for example a based low cost carrier or charter airline) basing aircraft at Stansted that requires slots during this period. According to ACL start of season reports, there is considerable excess demand for these slots. Indeed, GAL has told the CAA that a number of currently based and inbound airlines (including [redacted]) have sought to expand operations during the early morning departure peak, but have not been able to do so due to the unavailability of appropriate slots. The airport operator has also stated that they are aware of active consideration by airlines not currently at Gatwick to base aircraft at the airport<sup>77</sup>. Although there could be some albeit limited scope for relocating marginal aircraft or services, it is unclear whether such switching could effectively constrain STAL's behaviour.

**Figure 29: Gatwick capacity utilisation morning peak departures Summer 2012<sup>78</sup>**

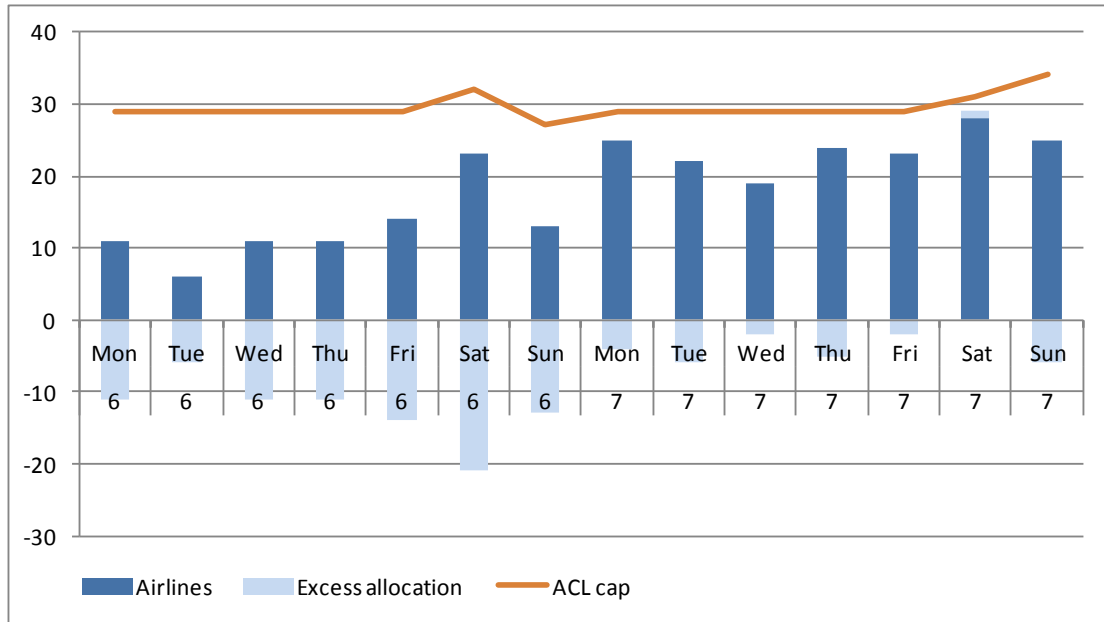


<sup>77</sup> Source: GAL

<sup>78</sup> While the proportion of allocated slots relative to declared capacity at Level 3 slot-coordinated airports will always fall within 100 per cent, actual ATMs operated may on occasion exceed the declared runway capacity for a particular hour on a given day. This is in part due to delays on a particular day or the aircraft being cleared for departure before its scheduled slot time.

Source: CAA airport statistics and ACL declared capacity data  
 Note: Charter includes Monarch (scheduled and charter), Thomas Cook, Thomson

**Figure 30: Gatwick capacity utilisation morning peak departures Winter 2011/12<sup>79</sup>**



Source: CAA airport statistics and ACL declared capacity data  
 Note: Charter includes Monarch (scheduled and charter), Thomas Cook, Thomson

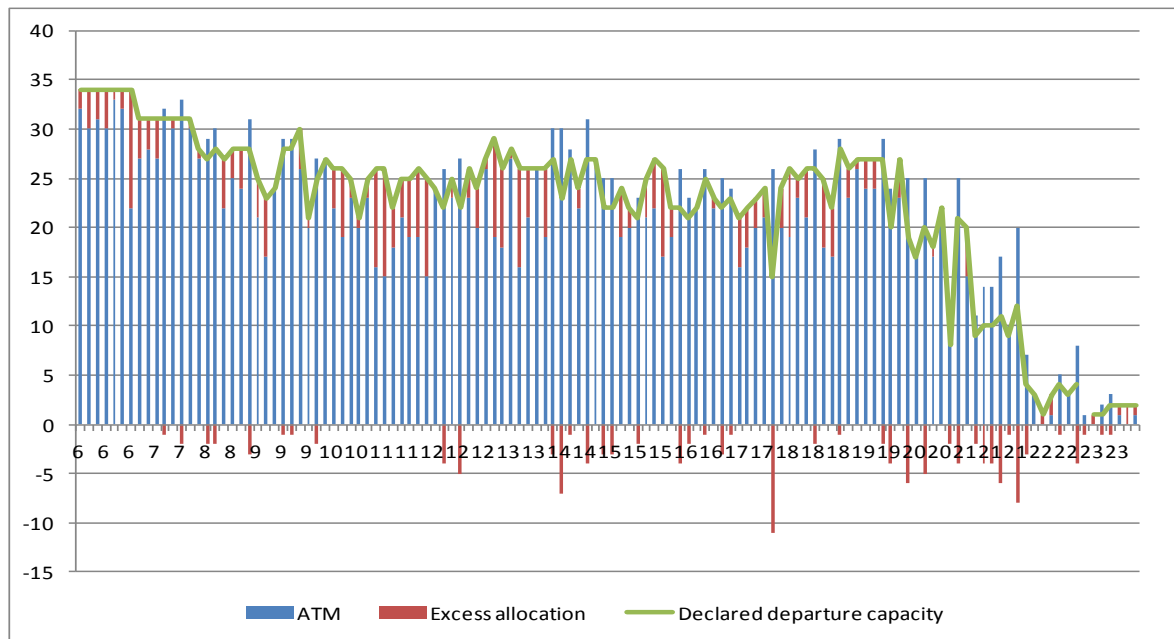
Outside the early morning peak

**Outside of the early morning peak, there remains some limited departure capacity available at Gatwick in the Summer traffic season, with at most 11 slots during mid-morning and mid-afternoon as shown in Figure 31. In contrast,**

3.40 Figure 32 suggests there is considerably more spare capacity available during the Winter traffic season, particularly after 1000 BST. It seems that there is most scope for an inbound or based airline with off-peak operations to switch aircraft or services to Gatwick during the Winter traffic season.

<sup>79</sup> It appears that only two slots (on Saturday) were reported as being initially allocated in the start of season report for flights between 0600 and 0659 BST.

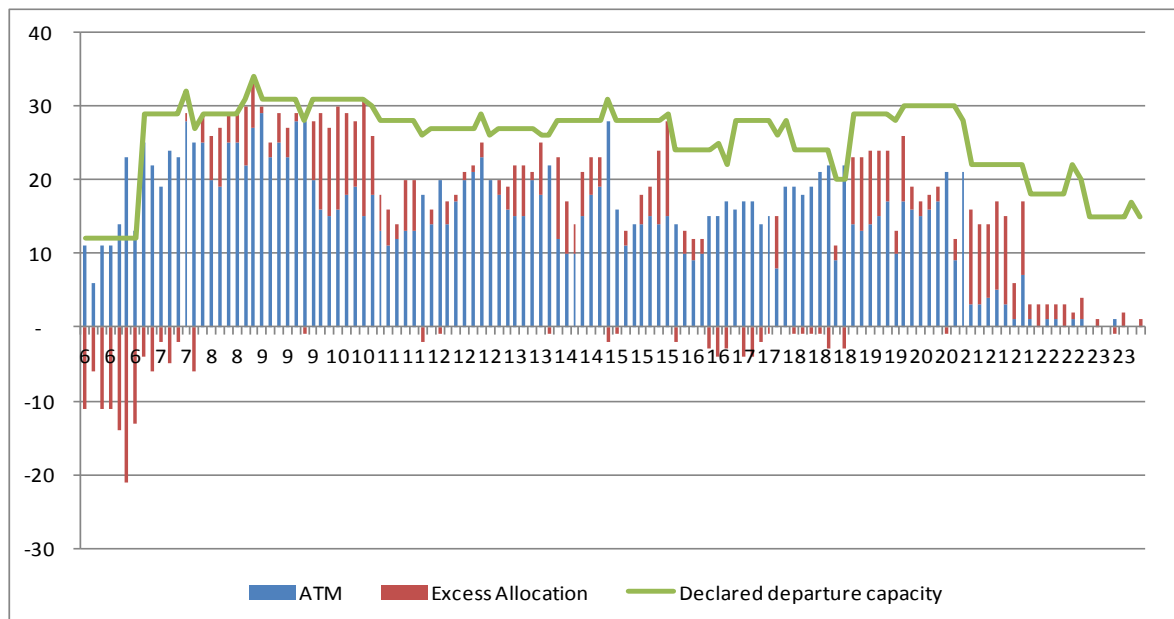
**Figure 31: Departure slot allocation and utilisation at Gatwick Summer 2012 (BST)**



Source: CAA airport statistics

Note: Where the excess allocation is negative, this mean that operated ATMs exceed the number of slots allocated in the start of season report.

**Figure 32: Departure slot allocation and utilisation at Gatwick Winter 2011/2012 (BST)**



Source: CAA airport statistics

Note: Where the excess allocation is negative, this mean that operated ATMs exceed the number of slots allocated in the start of season report.

### Aircraft stand capacity

3.41 According to GAL's 2011 Capital Investment Plan (CIP), airlines currently use 105 aircraft parking stands out of a total capacity of 115<sup>80</sup>, the configurations

<sup>80</sup> Source: GAL, [http://www.gatwickairport.com/Documents/business\\_and\\_community/Transforming%20Gatwick/CIP2011\\_FINAL.pdf](http://www.gatwickairport.com/Documents/business_and_community/Transforming%20Gatwick/CIP2011_FINAL.pdf), p.19 (accessed January 2013)

of which are set out in Table 6. On the basis of stand capacity alone, there remains scope for airlines to switch based aircraft from Stansted to Gatwick, though stand capacity constraints could become binding in the short- to medium-term.

**Table 6: Current aircraft parking stand provision at Gatwick<sup>81</sup>**

Pier	Code C	Code D	Code E	Code F	Total
1	8	-	-	-	8
2	9	2	8	-	19
3	-	-	8	-	8
4	-	1	8	-	9
5	4	2	6	-	12
6	7	2	2	-	11
Remote	2	18	26	2	48
<b>Total</b>	<b>30</b>	<b>25</b>	<b>58</b>	<b>2</b>	<b>115</b>

Source: GAL Masterplan 2011 Figure 5.1

Note: Typical aircraft: Code C: A319/320, B737

Code D: B757, B767

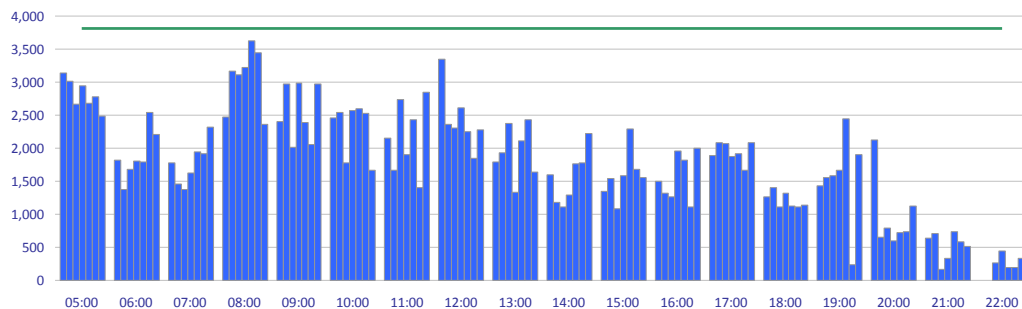
Code E: A330, A340, B747, B777, B787

Code F: A380

### Terminal capacity

3.42 Figure 33 and Figure 34 below suggest that, unlike runway capacity, both the South and North terminals at Gatwick would have sufficient capacity to accommodate additional departures from either incumbent or new entrant airlines during the early morning peak between 0500 and 0759 UTC, although the North terminal operates at its capacity limit during the end of the week in the Summer between 0500 and 0559 and at the start of the week between 0600 and 0659.

**Figure 33: Gatwick South Terminal Total Departing Passengers Summer 2012 (UTC)**



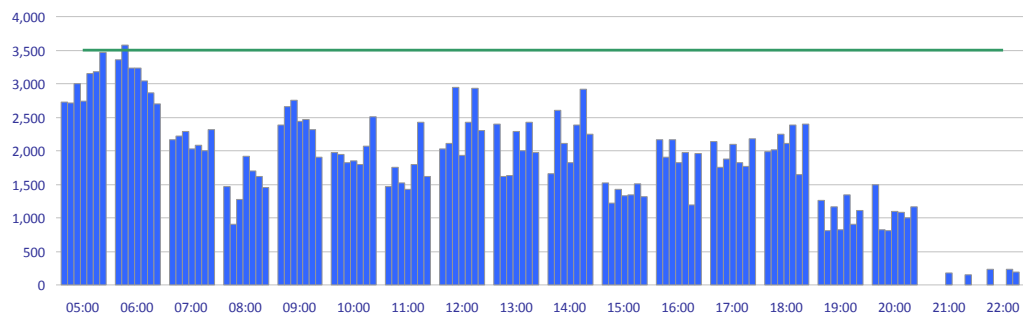
Source: ACL start of season report Summer 2012

Note: To reconcile Figure 24 and Table 5, BST is UTC+1.

<sup>81</sup> Source: GAL,

[http://www.gatwickairport.com/Documents/business\\_and\\_community/Gatwick%20master%20plan/2012-07-18-GAL\\_Masterplan.pdf](http://www.gatwickairport.com/Documents/business_and_community/Gatwick%20master%20plan/2012-07-18-GAL_Masterplan.pdf), p.43 (accessed January 2013)

**Figure 34: Gatwick North Terminal Total Departing Passengers Summer 2012 (UTC)**



Source: ACL start of season report Summer 2012  
 Note: To reconcile Figure 24 and Table 5, BST is UTC+1.

3.43 Arrival capacity for both terminals is not currently subject to a binding scheduling limit. On the whole, Gatwick’s two terminals have more spare capacity at each hour of the day during the Winter traffic season for both departures and arrivals.

3.44 In addition, GAL states that “almost all of the reductions from initial to allocated [terminal] demand at present are due to runway capacity constraints, with very few further changes to slot timings being required due to terminal capacity constraints”.<sup>82</sup> It seems unlikely that terminal scheduling limits alone constrain airline switching to Gatwick from Stansted (or another airport).

*Peak pricing*

3.45 Since April 2011, GAL’s aircraft landing charges are structured to differentiate between the aircraft landing during the Summer and Winter traffic seasons, lowering the charge to £0 for certain classes of aircraft during the latter.<sup>83</sup> This price differential could potentially have an effect on the switching decision(s) made by a Stansted airline regarding the potential relocation of marginal aircraft or services during the Winter traffic season as it could alter the relative profitability of operating from Stansted or Gatwick. Indeed, Ryanair says that it took advantage of a growth discount at Gatwick during the 2010/11 Winter season to increase its operations at the airport during that season, though this did not represent a shift in capacity from Stansted to Gatwick.<sup>84</sup>

*Plans for future capacity expansion*

3.46 According to its Masterplan and other associated documents, GAL is planning a number of capacity-expanding projects across the airport. It is currently subject to a moratorium on runway construction until 2019. The airport operator says its single runway is the main constraint to growth in

<sup>82</sup> Source: GAL

<sup>83</sup> GAL’s revised structure of charges has been the subject of a complaint by Flybe against GAL under Section 41 of AA86. Source: <http://www.caa.co.uk/docs/5/S41GatwickFlybeDecision.pdf> (accessed January 2013)

<sup>84</sup> Source: Ryanair

traffic and that if additional slot capacity were to become available on the single runway, it would aim to accommodate the additional passenger volume in one or other terminal. It is currently taking measures to increase peak ATMs on its runway from 53 to 55, which would contribute to its plans to reach 40mppa by 2021/22 and to 45mppa by 2030.<sup>85</sup>

- 3.47 Aircraft parking stand capacity has been expanded, with 6 new aircraft parking stands constructed in the North West Zone and stands on the south side of Pier 2 having been reconfigured to accommodate the most modern short-haul aircraft. In addition, a single gate in Pier 6 will be configured to accommodate A380 aircraft, with further such gates being envisaged.
- 3.48 To accommodate its forecast increases in passenger traffic to reach 40mppa over the next ten years, GAL says that some terminal capacity projects will be required to meet terminal demand within the airport's target queue and service standards.
- 3.49 GAL's plans for future capacity expansion should result in increased capacity at the margin, though these plans appear to be limited by the maximum capacity of its single runway. Also, this additional capacity may simply be sufficient to accommodate the underlying growth in passenger demand, rather than result in any net spare capacity to enable airline switching. Nevertheless, these projects could increase the scope for airlines to switch marginal aircraft or services away from Stansted.

#### *Summary*

- 3.50 Gatwick has a comparatively more varied airline customer base than Stansted and Luton, with a greater proportion of long-haul services. Slot utilisation is high throughout the day in the Summer traffic season, and there appears to be very little available departure capacity during the early morning period to accommodate additional based aircraft or services from low cost carriers. However, there is more capacity available during the mid-morning and mid-afternoon periods, which could give scope for switching by airlines operating based or inbound services at Stansted during the off-peak period. Overall, there is considerably more capacity available during the Winter traffic season. In addition, there appears to be currently sufficient aircraft parking stand capacity to accommodate additional based aircraft, as well as sufficient terminal capacity.
- 3.51 The airport operator's planned capacity expansion appears to increase incremental capacity as GAL is not currently permitted to build a second runway. This additional capacity might increase scope for switching from Stansted, although it would seem that this principally depends on the scope for increasing declared departure capacity during the early morning peak for the Summer traffic seasons and the underlying growth in demand.

#### **Southend**

- 3.52 Southend is another London airport which could be considered a viable substitute for airlines currently operating at Stansted. Following the start of

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<sup>85</sup> Source: GAL

easyJet operations at the airport in April 2012, easyJet passengers have constituted 90 per cent of Southend's traffic, followed by approximately 9 per cent of passengers being transported by Aer Arann.<sup>86</sup>

- 3.53 The current target of the airport operator (London Southend Airport Company Limited (LSACL)) is to achieve 2mppa by 2020, which is believed to be well within its maximum runway movement capacity and is planning terminal expansions. However, the airport operator has declared a maximum runway length of 1,739 metres, which in effect restricts the size of aircraft which can take off from the airport. For example, it appears that these technical restrictions make the runway unsuitable for a B737-800, which is the aircraft model operated by Ryanair, as well as A320s. As a result, Southend appears not to be a viable substitute airport for the largest airline at Stansted in terms of both ATM and passengers, which might considerably reduce the extent to which Southend can constrain STAL's behaviour. However, easyJet are able to, and has, moved services from Stansted to Southend. In addition, some of Stansted's other airlines<sup>87</sup> may also be able to relocate based or inbound marginal aircraft or services to Southend.

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<sup>86</sup> These shares are constructed using passenger data at the airport between April and September 2012.

<sup>87</sup> Source: Thomson Airways

## 4. Summary and conclusions

- 4.1 This annex has analysed capacity constraints at a number of London airports and their implications for airline substitution to and from Stansted. Chapter 2 analysed the capacity constraints at Stansted and the potential for new entrant airlines to begin, and incumbents to expand, their services from the airport. Chapter 3 examined the degree of capacity constraints at the London airports most likely to be considered substitutes by Stansted's current airlines and analysed the scope for the latter to switch marginal services to these airports.

### *Stansted*

- 4.2 Stansted's main airline business consists of based low cost carriers, for which the early morning peak is a key period as they aim to maximise aircraft utilisation. The airport also has a number of inbound low cost carriers, based and inbound charter operators, and cargo-only airlines. The period of most concentrated airline activity occurs during the early morning in the Summer traffic season, as based carriers depart from the airport.
- 4.3 There remains some departure capacity during the early morning peak, and a considerable amount of departure and arrival slot capacity across the rest of the day. Slot utilisation is higher during the Summer season than during the Winter traffic season, though the utilisation pattern remains similar. This suggests that there is some scope for new based operations by new or incumbent low cost carriers or other airlines requiring slots during the early morning departure peak.
- 4.4 Inbound airlines, in particular outside the early morning departure peak, are likely to have more scope to enter or expand operations at Stansted. This is also the case for based airlines that require slots outside of the early morning departure peak. Further, there are currently no binding aircraft parking stand departure capacity constraints. These findings also hold for the Winter traffic season, and to a larger extent given the greater available capacity, though this in part reflects the general trend across most airports of lower demand during this traffic season due to lower passenger demand and so may not be expected necessarily to increase markedly the scope for switching to the airport in practice.
- 4.5 Stansted does not appear to be approaching binding terminal capacity limits overall, although the passenger flows are higher at certain periods of the day such as the early morning peak. Although in the short term recovering passenger numbers may mean that passenger flows approach the scheduling limits, the airport operator is likely to be able to expand terminal capacity to accommodate additional passengers to fill runway capacity.
- 4.6 In addition to the existing spare capacity at Stansted, the airport operator has a number of capacity expansion plans – linked to taxiway, terminal and stand capacity – plans which would need to be implemented when passenger traffic reaches (depending on the project) 25, 30 or 35mppa.



## *Luton*

- 4.7 Luton has a similar airline mix to Stansted, although the airport also has a number of airlines operating long-haul services. The availability of departure slots during both the early morning peak and the off-peak period would suggest that both based low cost carriers, which constitute most of Stansted's airline business, and other based and inbound carriers might have scope to move marginal aircraft or services to Luton from Stansted.
- 4.8 However, limited aircraft parking stand capacity at Luton means that few additional aircraft can be based at the airport, as well as potentially leading to taxiway congestion if inbound early morning arrivals were to arrive off-schedule.<sup>88,89</sup> Terminal capacity limits could also become binding during the early morning peak.
- 4.9 LLAOL's current Masterplan does however outline plans to expand the number of aircraft stands and increase peak movement rate from 34 to 40 movements per hour by 2031, with a forecast increase from 9.5mppa in 2011/12 to 12.1mppa by 2019. The actualisation of these plans could, in the long term, increase the number of based aircraft that could switch from Stansted. Projects to expand terminal capacity have also been put forward.<sup>90</sup>

## *Gatwick*

- 4.10 Gatwick has a comparatively more varied airline customer base than Stansted and Luton, with a greater proportion of long-haul services. Slot utilisation is high throughout the day in the Summer traffic season, and there appears to be very little available departure capacity during the early morning period to accommodate additional based aircraft or services from low cost carriers. However, there is more capacity available during the mid-morning and mid-afternoon periods, which could give scope for switching by airlines operating based or inbound services at Stansted during the off-peak period. Overall, there is considerably more capacity available during the Winter traffic season. In addition, there appears to be currently sufficient aircraft parking stand capacity to accommodate additional based aircraft, as well as sufficient terminal capacity.
- 4.11 The airport operator's planned capacity expansion appears to increase incremental capacity, as GAL is not currently permitted to build a second runway. This additional capacity could increase scope for switching from Stansted, although it would seem that this principally depends on the scope for increasing declared departure capacity during the early morning peak for the Summer traffic seasons, and the extent to which this capacity expansion simply allows for underlying demand growth to be accommodated.

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<sup>88</sup> Source: Leigh Fisher report for Luton Airport Operations Limited, May 2012, p.6  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/2707/dft-2012-22-capacity-analysis.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/2707/dft-2012-22-capacity-analysis.pdf) (accessed January 2013)

<sup>89</sup> Although Luton has a comparatively shorter runway (2160m) than Stansted (3048m), this is unlikely to affect switching by Stansted's low cost carriers operating short-haul services with narrow-bodied aircraft.

<sup>90</sup> Source: LLAOL Masterplan, <http://www.london-luton.co.uk/en/content/8/1171/Masterplan.html> (accessed 7/10/2012)

### *Southend*

- 4.12 Southend is another London airport which could be considered a viable substitute for airlines currently operating at Stansted. Although technical runway restrictions appear to prevent Stansted's largest airline from potentially switching services to Southend, a number of the former's other carriers, including easyJet, would appear able to do so. In this way, Southend could act as an additional constraint on the behaviour of STAL.

### *Overall conclusion*

- 4.13 Overall, STAL appears to have scope to attract new entrants and expanded incumbent services at all times of day, though departure slot availability is lower during the early morning peak.
- 4.14 On the other hand, there appears to be limited scope for relocation of marginal aircraft or services by Stansted's airlines to Luton, Gatwick, or Southend during the early morning peak. This scope could slightly increase in the medium term, according to these airport operators' plans for future capacity expansion. In contrast, there is considerably more scope for substitution away from Stansted during the off-peak periods, but this represents less of the airport's traffic. Analysing the likelihood that Stansted's incumbent airlines take advantage of the limited available early morning capacity at other London airports would require consideration of other factors, including airline switching costs. The capacity constraints during the early morning peak at Luton and Gatwick suggests that there is limited scope for the relocation of aircraft to these airports. While Southend has significant spare capacity during the relevant times of day, its insufficient runway length makes it technically impossible for Ryanair to relocate the aircraft it currently has at Stansted to that airport. There may also be constraints from certain continental European airports, the impact of which is beyond the scope of this paper.