

Appeal by BAA Ltd and Stansted Airport Ltd following the refusal by Uttlesford District Council of planning application UTT/0717/06/FUL

Proof of Evidence on behalf of Stop Stansted Expansion

Stansted Capacity and Air Traffic Forecasts

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1 INTRODUCTION

1.1 Personal background

- 1.1.1 My name is Peter Forbes. I am Managing Director of Alan Stratford and Associates Limited, the specialist air transport planning consultancy. I have 23 years experience in the aviation industry which has included senior positions at British Caledonian Airways and the UK Civil Aviation Authority.
- 1.1.2 I hold a Bachelor of Arts Degree in Economics with Mathematics from the University of Sussex (specialising in transport economics) and I am a member of the Royal Aeronautical Society and the Chartered Institute of Logistics and Transport.
- 1.1.3 My consultancy experience includes a wide range of studies at UK and overseas airports covering air traffic forecasting, route development, facility sizing, capacity assessment, environmental appraisal and surface access modal split analysis. I have previously undertaken traffic forecasting studies at Nottingham East Midlands, Glasgow Prestwick, Sydney, Kuala Lumpur and Berlin Brandenburg airports and capacity studies at London Luton and Dublin airports.

1.2 Context

- 1.2.1 This report provides an independent assessment of the air traffic forecasts and capacity limits given in supporting documentation submitted by BAA and Stop Stansted Expansion (SSE) for a planning application (Ref UTT/071706/FUL) for the development of the airport using its current single runway (known as Generation 1). This Planning application was refused by Uttlesford District Council and the applicant, BAA, subsequently appealed against this decision. This report is now submitted as a proof of evidence to the Public Inquiry set up to hear this Appeal.
- 1.2.2 The report contains:
- A brief summary of the background to the study;
 - BAA's traffic forecasts, forecasting methodology and key assumptions;
 - Our own traffic forecasts and capacity estimates based on the data provided;
 - A summary of our conclusions.

1.3 Background to this assessment

- 1.3.1 London Stansted Airport handled 23.7 million passengers in 2006 and expects to reach its current planning limit of 25 million passengers by 2008. Its operator, BAA, submitted a planning application in April 2006 to expand the airport by removing the current limit of 25 million passengers per annum and increasing air transport movements (ATMs) from 241,000 to 264,000 per annum. BAA forecast that this will result in approximately 35 million passengers per annum by 2014/15.
- 1.3.2 The absence of any proposed limit on total annual passengers (rather than ATMs) means that the true impact of the airport's development (on surface access

constraints, local community impact etc) is not defined. In supporting documentation [CD/19] submitted as part of the planning application, BAA based their estimate of 35 million passengers per annum by 2014/15 on the expected traffic mix (eg LCC, full service scheduled etc) and the expected growth in passengers per ATM based on extrapolation from historic data at Stansted, Heathrow and Gatwick. A sensitivity test was also made showing that the maximum expected throughput would be 37.5 million passenger per annum by 2014/15. Their assessment was based on the expected aircraft types used, their standard seating configurations and the anticipated load factor. Although BAA took account of the likely future change in the route network profile, the proportion of long haul flights using larger aircraft types in their analysis is questionable and no adjustment was made for the specific aircraft seating configurations used by airlines at Stansted.

- 1.3.3 SSE prepared a response to the planning application [CD/201] which included their own analysis of the expected number of passengers resulting from a limit of 264,000 ATMs per annum. This analysis has subsequently been updated and is submitted as a proof of evidence to the Inquiry. SSE's analysis, which is based on BAA's high sensitivity case, takes account of the expected future route network at Stansted and likely aircraft types deployed and incorporates alternative load factors. SSE's analysis shows that a potentially higher figure of 39.8 million passengers per annum might be expected by 2014/15, rising to 44.6 million by 2021 and 49.7 million by 2030.
- 1.3.4 These analyses, together with other relevant published sources eg air traffic forecasts and historic traffic statistics published by the Department of Transport, the Civil Aviation Authority, other UK airports etc will form the basic source documents for our review.

2 BAA'S TRAFFIC FORECASTS

2.1 Traffic forecasts

- 2.1.1 BAA's traffic forecasts for the 25 mppa and 35 mppa cases described above together with the most recent traffic data reported to the Civil Aviation Authority (2006) are given in Table 2.1 below.

Table 2.1 BAA Traffic Forecasts - Stansted Airport

| | 2006 (Actual) | 25 mppa (2014) | 35 mppa (2014) | BAA Sensitivity (2014) |
|---------------------|--------------------------|---------------------------|---------------------------|---------------------------------------|
| Passenger ATMs | 179,031 | 180,000 | 242,750 | 243,500 |
| Cargo ATMs | 10,964 | 22,500 | 20,500 | 20,459 |
| Total ATMs | 189,995 | 202,500 | 263,250 | 263,959 |
| Passengers (000) | 23,680 | 25,000 | 35,000 | 37,500 |
| Passengers per PATM | 132 | 139 | 144 | 154 |

- 2.1.2 In the 25 mppa scenario, BAA has projected that passenger traffic would increase by some 0.7% per annum from its current (2006) level to 2014. This is achieved largely through a 0.6% annual growth in aircraft size (ie the number of passengers

per ATM). Whilst the number of annual passenger ATMs (PATMs) in the 25 mppa scenario is similar to 2006 levels, BAA forecasts that, by 2014, they would be able to increase the number of cargo ATMs to its current planning limit of 22,500 movements per annum. This represents an annual growth rate of 9.4% per annum.

2.1.3 Under the 35 mppa scenario BAA forecasts that, as a result of the increased runway capacity, passenger traffic would grow by 5.0% per annum to 2014. This is comprised of a 3.9% annual increase in the number of PATMs and 1.1% annual growth in aircraft size. As a sensitivity case to the 35 mppa scenario, BAA show 'upper bound' annual growth of 5.9% in passenger traffic, based on a similar 3.9% increase in annual PATMs but a higher annual growth rate of 1.9% in aircraft size.

2.1.4 The achieved traffic levels at Stansted and annual growth rates over the period 2000-2006 are shown in Table 2.2.

Table 2.2 Stansted Airport - Achieved Traffic Levels - 2000-2006

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | Annual Growth % |
|---------------------|---------|---------|---------|---------|---------|---------|---------|-----------------|
| Passenger ATMs | 132,445 | 138,681 | 141,873 | 158,910 | 165,722 | 166,755 | 179,031 | 5.2% |
| Cargo ATMs | 11,189 | 11,884 | 10,562 | 10,309 | 11,047 | 11,257 | 10,964 | -0.3% |
| Total ATMs | 143,634 | 150,565 | 152,435 | 169,219 | 176,769 | 178,012 | 189,995 | 4.8% |
| Passengers (000) | 11,860 | 13,654 | 16,049 | 18,716 | 20,907 | 21,992 | 23,680 | 12.2% |
| Passengers per PATM | 90 | 99 | 113 | 118 | 126 | 132 | 132 | 6.6% |

2.1.5 The traffic levels during the past six years reveal that Stansted has achieved a significantly higher growth rate in passengers per PATM than that used for BAA's forecasts for the 25 mppa, 35 mppa or the 'upper bound' of the 35 mppa case.

2.1.6 BAA has broken down PATMs in both the 25 mppa and 35 mppa cases by individual market. This is given in Table 2.3.

Table 2.3 Stansted Airport - BAA Forecasted PATMs (000)

| | 2004 | 25 mppa case | 35 mppa case |
|-----------------------------|-------|--------------|--------------|
| Domestic SH Sch (ILow Cost) | 148.9 | 153.6 | 203.1 |
| Domestic & SH Sch (Other) | 9.9 | 23.6 | 19.8 |
| SH Charter | 6.6 | 2.8 | 4.7 |
| Long Haul | 0.3 | 4.5 | 15.1 |
| Total | 165.7 | 180.0 | 242.7 |

2.1.7 BAA's analysis is based on their forecasts of the expected passenger mix (Table 2.4) and aircraft load characteristics (Table 2.5) in 2014.

Table 2.4 Stansted Airport - BAA Forecasted Market Mix (%)

| | 25 mppa case | 35 mppa case | BAA SE Airports (2005) |
|------------------------------|--------------|--------------|------------------------|
| Domestic & SH Sch (Low Cost) | 88% | 83% | 22% |
| Domestic & SH Sch (Other) | 6% | 4% | 39% |
| SH Charter | 2% | 2% | 7% |
| Long Haul | 4% | 10% | 32% |
| Total | 100% | 100% | 100% |

Table 2.5 Stansted Airport - BAA Forecasted PATM Average Loads by Market

| | 25 mppa case | 35 mppa case | STN (2004) | LHR (2004) | LGW (2004) | BAA SE Airports (2004) |
|------------------------------|--------------|--------------|------------|------------|------------|------------------------|
| Domestic & SH Sch (Low Cost) | 144 | 144 | 129 | * | 114 | 126 |
| Domestic & SH Sch (Other) | 73 | 74 | 57 | 111 | 88 | 104 |
| SH Charter | 177 | 177 | 168 | * | 200 | 192 |
| LH Scheduled | 226 | 226 | 146 | 225 | 215 | 223 |
| LH Charter | 267 | 267 | 160 | * | 277 | 276 |

2.2 Key assumptions

- 2.2.1 In their traffic forecasts for the 25 mppa and 35 mppa cases, BAA have relied on a number of key assumptions, particularly in relation to the growth in the proportion of long haul traffic and size of aircraft used.

2.3 Overall market demand

- 2.3.1 Their projections are based on an overall forecast that the demand for air travel from the London Airports will rise by about 4% per annum to 192 mppa by 2014/15. Additional capacity in the London region will be added through the introduction of Terminal 5 at Heathrow, although this itself is subject to a constraint that the total number of aircraft movements will be limited to no more than 480,000 per annum. Although, as BAA indicate, some further development is to be expected at both London City and at Luton Airports, it should be pointed out that both airports are severely site constrained and that the level of expansion is such that much of the traffic overflow in the South East will potentially be assigned to Stansted as it is the only London airport with any significant level of additional capacity. Indeed, the impact of Luton is likely to be less than envisaged by BAA in their initial projections as the airport has now ruled out any immediate prospect of a replacement runway, at least before 2014/15. This would tend to increase traffic levels at Stansted, particularly in the long haul sector which is currently constrained at Luton due to its limited runway length.
- 2.3.2 BAA's analysis assumes that, by 2014, Heathrow would not have a third runway. This, however, might be feasible after this date, either with or without a second runway at Stansted. Clearly a third runway at Heathrow would tend to reduce market demand at Stansted, particularly for long haul traffic. It is, however, possible, that a third runway is not built at either Heathrow or at Stansted for some

time after 2014, or is not built at all. This capacity constraint would tend to increase traffic levels at Stansted beyond the 35 mppa limit due to the rising number of Passengers per PATM.

2.4 Market mix

- 2.4.1 BAA assume that the growth rates in both domestic and low cost haul passenger traffic at Stansted will gradually reduce due to market saturation. Indeed, it is likely that air fares will rise in real terms over the next two decades due to environmental constraints and that, in the case of domestic and some intra-European markets, there will be increased competition from rail. Runway slots, particularly at peak morning periods, will become increasingly scarce, thus increasing the proportion of non-peak flights, particularly from non Stansted-based operators.
- 2.4.2 The level of long haul traffic at Stansted can be expected to rise more rapidly than other traffic sectors due both to increased demand and capacity constraints at the other London airports (as a result, for example, of the recent EU-US 'open skies' agreement, which will put substantial additional pressure on slots at Heathrow, with some overflow into Stansted). Air traffic forecasts produced by the Department for Transport¹ suggest that the long haul sector across the UK will grow at a faster rate (4.6% per annum) than either short haul scheduled, low cost or domestic traffic over the period 2005-2015.
- 2.4.3 BAA project that the long haul sector will represent some 4% of Stansted's passenger traffic in the 25 mppa case, although this would rise to 10% in the 35 mppa case. BAA argue that this relative increase results from the fact that Stansted is more attractive to long haul airlines if there is sufficient additional capacity for such operations and there is scope for further expansion. As indicated in Table 2.4, the proportion of long haul traffic expected at Stansted under the 35 mppa option is considerably lower than the current (2005) level for BAA SE Airports as a whole. This latter proportion is likely to rise further as long haul traffic is expected to grow at a faster rate than other market sectors. In these circumstances, it is quite possible that the proportion of long haul traffic at Stansted could be much higher than 10% under the 35 mppa case and could potentially rise further still after 2014 in the absence of a third runway at Heathrow.
- 2.4.4 The precise level of long haul traffic would depend both on market demand and on the allocation of traffic between the London (and to the regional) airports. Since 2004, two all-business class airlines flying to the US, MAXjet and Eos, have become established at Stansted. MAXjet flies B767-200 and B767-200ER aircraft configured with either 94 or 102 seats, whilst EoS have an all B757-200 fleet configured with 48 seats. In April 2007, Ryanair announced² that it plans to introduce low cost long haul flights to the USA from mid-2009 onwards. These would be flown using a fleet of 40-50 B787 or A350 aircraft from various European bases. Given its key role in Ryanair's network it is likely that a high proportion of these flights would be to and from Stansted. Other airlines wishing to operate in the low cost long haul market (both to the US and other long haul destinations) may also use Stansted given that Luton has a restricted runway length and other London airports are capacity constrained.
- 2.4.5 The combined impact of these new market sectors, which do not seem to have been taken into account in BAA's analysis, would tend to increase the proportion

¹ Air Traffic Forecasts for the United Kingdom, Dept for Transport, 2000 [CD/233], (updated in 2006).

² Article in 'Flight International, 11/04/07.

of long haul flights – and, in the case of possible low cost long haul flights, would significantly increase the maximum passenger throughput beyond the stated limit in the '35 mppa' scenario.

2.5 Cargo air transport movements

- 2.5.1 BAA have forecasted that the total number of cargo ATMs at Stansted will increase from 10,964 in 2006 to 20,500 in 2014 under the '35 mppa' case and to 22,500 under the '25 mppa' case. The latter figure is higher as BAA argues that, if they are not granted a relaxation of the current movement constraint, they will seek to use their existing cargo ATM limits to their maximum. This argument seems odd as, from a commercial standpoint, BAA should maximise the value of their planning limit of 241,000 movements per annum irrespective of any preconceived breakdown between cargo and passenger movements. Given recent trends at Stansted, it would seem that there is currently little demand for additional cargo rather than passenger movements.
- 2.5.2 The split between passenger and cargo ATMs and other aircraft movements, has been calculated assuming a growth rate of some 6.3% per annum in the volume of cargo handled at Stansted to 2014/15. This is higher than that projected for the UK market as a whole (4.0% pa) and reflects BAA's belief that Stansted is well placed to attract this additional traffic.
- 2.5.3 As BAA point out, Stansted is theoretically in a better position for rapid cargo growth than other airports in London and the South East as (a) it has more spare runway capacity for all freighter aircraft, (b) it has an existing market presence in the growing express parcels sector and (c) it potentially has scope for expansion in bellyhold cargo in passenger aircraft as the long haul sector grows. However, the fact is that, as shown in Table 2.2, the total number of cargo ATMs at Stansted has fallen by an average of 0.3% per annum since 2000, despite the availability of runway capacity and an apparently growing market. In addition, despite the proposed removal of the current ATM constraints, there may be limited opportunities for additional all freighter night flights within the relevant noise quotas.
- 2.5.4 The precise split between passenger and cargo ATMs at the runway capacity limit of 274,000 movements per annum would ultimately depend on the marginal benefits of each type of traffic to airline and cargo operators and the marginal cost to BAA. If passenger traffic is more profitable to both airlines and BAA, then this will prevail.

2.6 Passengers per PATM

- 2.6.1 A key assumption in BAA's traffic forecasts is the projected number of passengers per PATM. As shown in Table 2.1, under the '25 mppa' case, the ratio of passengers per PATM increases from 132 in 2006 to 139 in 2014 (an annual growth of some 0.7% pa). In the '35 mppa' case this ratio rises to 144 in 2014, representing an annual growth of some 1.1% pa, whilst in the upper bound '35 mppa' case this increases to 154 passengers per PATM in 2014 (an annual growth of 1.9%).
- 2.6.2 It should initially be noted that, as shown in Table 2.5, the projected growth in the ratio of passengers per PATM under all of these scenarios is significantly less than

that achieved at Stansted over the period 2000-2006, despite the fact that the airport currently focuses predominately on the low cost short haul market.

- 2.6.3 The average number of passengers per PATM by each traffic type for the '25 mppa' and '35 mppa' scenarios is given in Table 2.5. In the case of low cost scheduled short haul traffic, the ratio of passengers per PATM rises from its present level of 129 to 144 passengers per PATM reflecting the fact that most airlines in this sector are likely to upgrade to larger aircraft types with dense seating configurations. Ryanair intends to continue to operate B737-800 aircraft with 189 seats, whilst EasyJet will move to a predominantly A319 (156 seat) and A320 fleet. Other low cost airlines are likely to follow this trend. Based on current load factors of around 85% (which are unlikely to alter significantly), this increase to 144 passengers per PATM seems reasonable.
- 2.6.4 In the case of 'other scheduled short haul' traffic, the predominant aircraft type currently seems to be Fokker F100 or BAE146 flown by Air Berlin and similar operators. As indicated in Table 2.5, the average number of passengers per PATM for this market sector predicted under the '25 mppa' and '35 mppa' cases is lower than that currently at either Heathrow, Gatwick or across BAA airports as a whole. Given that these larger aircraft are used at these airports and given that there may be some upgrading of aircraft types deployed by 2014 (although some smaller types will continue to be used), we feel that the averages of 73 and 74 passengers per PATM respectively for the two scenarios have been underestimated.
- 2.6.5 Stansted does not currently nor is it expected to handle a significant volume of short haul charter traffic. Whilst the average aircraft size in this sector is, and is expected to continue to be smaller than that used at Gatwick as it is a less significant charter base with fewer larger aircraft types as B767 and A330s, the ratio of passengers per PATM forecasted under the '25 mppa' and '35 mppa' cases seems low in comparison to current levels at Gatwick.
- 2.6.6 BAA's analysis splits out the ratio of passengers per PATM for long haul scheduled and long haul charter traffic in the '25 mppa' and '35 mppa' cases, although it combines the traffic mix (ie the proportion of the total traffic) as a single figure. In 2004, the ratio of passengers per PATM for long haul scheduled traffic at Stansted was significantly less than that at Gatwick or Heathrow. Although no specific data is available, it is clear that this has not increased significantly by 2007 as the only major new operators in this sector are MAXjet and Eos referred to above. Should the low cost long haul market develop at Stansted, the ratio of passengers per PATM is likely to increase beyond BAA's estimate of 226 as operators are likely to use larger aircraft types eg B787 and A350 with comparatively high load factors. Further details on the possible types of aircraft used in this sector are shown in Section 2.2.5 below.

2.7 Types of aircraft used

- 2.7.1 A breakdown of the projected number of aircraft movements by aircraft type for the '25 mppa' and '35 mppa' scenarios in 2014 is given in BAA's submission [CD/19] for the planning application, although this appears to have been produced to calculate projected Leq noise exposure levels rather than to estimate passenger throughput.

- 2.7.2 Although we have attempted to make our own analysis of this data, we have found it impossible to correlate the number of aircraft movements against the traffic type (eg passenger/cargo/general aviation) and, within this, by passenger type (eg scheduled low cost, scheduled other, short haul charter, long haul etc). We cannot therefore make our own detailed projections using this (or modifications of this) data.
- 2.7.3 BAA's breakdown does, however, suggest that the number of movements for newer long haul aircraft types (eg A340, B777, and the new A380) seem to be under-estimated in the '35 mppa' case. Indeed, the total number of movements (as specified in the '2014 Lden') for the A380 is lower in the '35 mppa' case (249) than in the '25 mppa' case (624). The analysis appears to suggest that 'new 250 seater' aircraft (presumably the B787) would represent a high proportion of long haul traffic under the '35 mppa' scenario. This is probably a reasonable conclusion as it is likely Ryanair (and other low cost long haul operators) would use this aircraft type. The number of 'new 250 seater' aircraft movements shown in this analysis, however, seems low (approx 7,500 pa) in view of the proposed '40-50 aircraft' that would be used by Ryanair to serve its low cost long haul market. If, say, 12 of these aircraft were based at Stansted, this alone would represent almost 9,000 PATMs and 1.9 million passengers annually, irrespective of all other airlines which are likely to use this aircraft type.
- 2.7.4 Our view is that BAA have not made a rigorous analysis of aircraft types and potential passenger loads to support their analysis and that their passenger projections for the '35 mppa' scenario (including the latter's 'upper bound' case) are suspect.

2.8 Beyond 2014

- 2.8.1 It is noticeable that in their supporting documentation BAA fail to consider the implications of any traffic growth in the '35 mppa' case beyond 2014. This may partially be because they view this planning application as a precursor to a further application for a second runway at or around this date. Nevertheless, this cannot be taken as a foregone conclusion - particularly in view of BAA's recent statements promoting a third runway at Heathrow.
- 2.8.2 In view of this, we feel we should make some comment on the possible growth in traffic levels at Stansted beyond 2014. The forecasted growth tends to promote the case for a new runway at either Heathrow or at Stansted (or conceivably both) by around 2015. If this is built at Heathrow (but not at Stansted), then there would be some switch of market share to Heathrow - although it is likely that low cost traffic and a small proportion of charter and long haul traffic would remain at Stansted. If a new runway is built at Stansted then the impact beyond 2014 is irrelevant in this particular analysis.
- 2.8.3 A possible outcome is that, despite increasing traffic demand, a new runway is not built at either Heathrow or at Stansted beyond 2014, possibly for environmental reasons. In this instance, one would expect traffic to grow beyond BAA's forecasted '35 mppa' case due both to an increasing proportion of long haul flights and the use of larger aircraft types, even for short haul sectors. It is not inconceivable that, in the longer term (ie 10-15 years plus), the B787 and the larger B737 replacement, the Boeing Y1 would replace the B737 series. In the Japanese and Chinese markets, the use of A380 aircraft for short haul flights has been suggested at some slot-constrained airports.

- 2.8.4 An assessment of possible traffic levels in the '35 mppa' case beyond 2014 (in 2020 and 2030) is given in our own traffic forecasts in Section 3.

3 OUR TRAFFIC FORECASTS

3.1 Key assumptions

- 3.1.1 Our own analysis is based largely on an evaluation of the likely traffic mix, aircraft types and average passenger loads expected at Stansted once it reaches its current limit of 241,000 movements per annum and its anticipated capacity limit of 264,000 movements per annum. We have made no evaluation of the underlying demand for traffic in the South East or of Stansted's potential catchment area - so, in line with BAA, we assume that the capacity limit would be reached by around 2014. Any increases in passenger levels at Stansted in our own forecasts would therefore represent an increase in its market share in comparison to and at the expense of Heathrow and Gatwick, although the overall level of demand in the South East should be regarded as unchanged. We have also assumed similar levels of overall demand in the South East by type of traffic (eg low cost, charter etc) - although it is quite possible that, at the capacity limit, the proportion of long-haul at Stansted may be higher than forecast as it is potentially more profitable for the airport operator and it is less elastic to possible increases in fares (eg environmental taxes etc).
- 3.1.2 In terms of the breakdown of passenger and cargo ATMs, we believe that BAA has over-estimated the total number of cargo ATMs in both the '25 mppa' and '35 mppa' scenarios (see Section 2.2.3). We believe that this should be around 15,000 in 2014 with the balance as passenger ATMs. These figures could be expected to be maintained in 2020 and 2030. We also feel that the number of passengers per PATM is under-estimated in 2014 for all aircraft types except low cost scheduled (as new larger fleet types will not be introduced by this date). Some further growth in line with market trends should be anticipated - particularly in the long haul sector. These ratios are shown in Table 3.1

Table 3.1 Stansted Airport - Comparison of Passengers per PATM

| | BAA Forecasts | | Our Forecasts (Midpoint Estimates) | | |
|--------------------------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | 25 mppa (2014) | 35 mppa (2014) | 35 mppa (2014) | 35 mppa (2020) | 35 mppa (2030) |
| Domestic and SH Scheduled (Low Cost) | 144 | 144 | 144 | 151 | 159 |
| Domestic and SH Scheduled (other) | 73 | 74 | 100 | 105 | 110 |
| SH Charter | 177 | 177 | 190 | 200 | 210 |
| Long Haul | 226 | 226 | 240 | 265 | 293 |

- 3.1.3 In terms of the market mix, we feel that BAA have significantly under-estimated long haul traffic after taking account of the potential growth in the 'low cost long haul' sector and the stronger growth rate in this market in comparison to other sectors. Our projected traffic mix for the '35 mppa' scenario in 2014, 2020 and 2030 is given in Table 3.2

Table 3.2 Stansted Airport - Projected Traffic Mix (%)

| | BAA Forecasts | | Our Forecasts (Midpoint Estimates) | | |
|--------------------------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | 25 mppa (2014) | 35 mppa (2014) | 35 mppa (2014) | 35 mppa (2020) | 35 mppa (2030) |
| Domestic and SH Scheduled (Low Cost) | 88% | 83% | 80% | 72% | 69% |
| Domestic and SH Scheduled (Other) | 6% | 4% | 5% | 3% | 2% |
| SH Charter | 2% | 2% | 1% | 1% | 1% |
| Long Haul | 4% | 10% | 13% | 24% | 28% |

3.2 Traffic forecasts

3.2.1 Based on these figures we have calculated the impact on overall passenger throughput for the '35 mppa' case in 2014, 2020 and 2030. By definition, our forecasts assume that Stansted continues as a single runway airport to 2030. However, given the potential variation of overall traffic demand in London and the South East, the traffic mix, aircraft size and the various permutations and timings of future additional runway and terminal capacity at Heathrow and other competing airports, we have shown these forecasts as ranges rather than as single midpoint estimates.

3.2.2 Our traffic forecasts are given in Table 3.3 below.

Table 3.3 Stansted Airport - BAA and Consultant Forecasts - 2014-2030

| | BAA's Forecasts | | | Our Forecasts | | |
|-------------------------|-----------------|----------------|------------------------|----------------|----------------|----------------|
| | 25 mppa (2014) | 35 mppa (2014) | 35 mppa 'Upper' (2014) | 35 mppa (2014) | 35 mppa (2020) | 35 mppa (2030) |
| PATMs | 180,000 | 242,750 | 243,500 | 248,250 | 248,250 | 248,250 |
| CATMs | 22,500 | 20,500 | 20,459 | 15,000 | 15,000 | 15,000 |
| Total ATMs | 202,500 | 263,250 | 263,959 | 263,250 | 263,250 | 263,250 |
| Total Passengers (mppa) | 25.0 | 35.0 | 37.0 | 36.3-37.7 | 40.8-42.2 | 44.1-45.7 |
| Passengers per ATM | 139 | 144 | 154 | 146-152 | 164-170 | 178-184 |

3.2.3 Our analysis indicates that traffic levels under the so-called '35 mppa' case could potentially be in excess of 45 mppa at 2030 should Stansted continue as a single runway airport.

4 CONCLUSIONS

- 4.1.1 In our view, BAA has made several misjudgements in its assessment of Stansted passenger throughput at its runway movement capacity of 264,000 ATMs per annum.
- 4.1.2 We believe that BAA's forecasts over-estimate the number of cargo ATMs at the capacity limit. There has been a decline in the number of cargo ATMs since 2000 and, whilst we believe that there will now be some growth to 2014, we feel that this will be at about one half of the rate predicted by BAA. This reduction in the level of cargo ATMs will potentially increase the level of PATMs at capacity.
- 4.1.3 We feel that BAA have under-estimated both the proportion of long haul traffic and the average number of passengers per PATM. The proportion of long haul traffic does not include the potential impact of the 'low cost short haul' as proposed by Ryanair and other airlines. It also does not consider the effect of the recent 'open skies' agreement between the EU and the US which is likely to increase long haul throughput at Heathrow in particular, with potential displacement to Stansted. The BAA analysis is also flawed in that it only considers traffic to 2014 rather than the impact of further growth in the share of long haul traffic and in the size of average passenger loads after this date.
- 4.1.4 Our own analysis suggests that passenger throughput at Stansted could potentially rise to around 36.3 - 37.7 mppa in 2014. This is higher than BAA's base figure of 35 mppa - but is similar to their 'Upper Bound' case. By 2020, however, we forecast that traffic levels will increase to between 40.8 - 42.2 mppa. This represents an annual growth rate of 3.9% per annum, which is broadly in line with the Department for Transport's expected traffic growth rate of 4.0% per annum across the UK. Our best estimate for traffic by 2030, assuming Stansted continues as a single runway airport is in the region of 44.1 - 45.7 mppa.
- 4.1.5 Given that our forecasts show an increased proportion of long haul traffic which generally uses larger and noisier aircraft types, we would expect that overall noise levels would be higher under our forecasting scenarios. Further detailed assessment, however, is needed to quantify these effects.