York Aviation

CITY AIRPORT DEVELOPMENT PROGRAMME

UPDATE TO THE NEED STATEMENT

September 2015

York Aviation	Originated by: Louise Congdon Dated: 24.8.15 Reviewed by: Richard Kaberry Dated: 25.8.15

CITY AIRPORT DEVELOPMENT PROGRAMME

UPDATE TO THE NEED STATEMENT

Contents

Page

1 BACKGROUND

1.1 This document presents an update to the Need Statement submitted in July 2013 to accompany the planning application for the City Airport Development Programme (CADP). It should be read alongside the Updated Environmental Statement (UES), in particular Chapter 7 dealing with the Socio-Economic, Community and Recreation aspects. Both this Update and the UES have been produced to account for the passage of time and delays that have arisen to the planning process to date.

1.2 This Update has been produced to:

- provide an update to the aviation policy context in the light of the report of the Airports Commission;
- provide an update to relevant economic policies;
- describe the performance of the Airport in 2014;
- explain updated aircraft movement and passenger forecasts and the consequential implications for the demand projections, which have been extended from 2023 to 2025 because of delays in the planning process. A number of alternative scenarios are provided for robustness and, in part, to respond to comments received during the determination of the CADP application by the London Borough of Newham (LBN);
- update the capacity assessment taking into account the effect of the delays to the planned implementation programme for CADP, the revised demand projections and the implications of some operational improvements being made by the Airport, particularly to security processing;
- update the assessment of the economic implications of CADP based on the updated demand projections;
- set out further analysis of the wider implications for the economy of London arising from the development drawing on the additional analyses of the wider economic impacts of airport development adopted by the Airports Commission.

1.3 Each section of this update sets out how, if at all, the information in the original Need Statement has been updated to account for the factors set out above. Except where specifically updated in this Update to the Need Statement, the information in the original Need Statement remains valid.

1.4 Whilst the assessment of the need for CADP has been updated, the overall justification for the development as set out in the original Need Statement (July 2013) remains unchanged, particularly in respect of the compliance with a key element of aviation policy, namely making best use of existing runway capacity. The economic benefits, including the wider economic benefits from the air connectivity which the Airport provides, remain extremely strong. As with the original Need Statement, this document considers the aviation need for CADP1 and does not deal in detail with the need for the Hotel development (CADP2).

2 UPDATED POLICY CONTEXT

Aviation Policy

2.1 The latest statement of UK Aviation Policy remains as set out in the Aviation Policy Framework (APF), published in March 2013. It remains a Government priority *"to make better use of existing runways at all UK airports"*, particularly in the period to 2020[1]. Hence, the policy context for the consideration of CADP remains largely unchanged from that set out in Section 2 of the Need Statement. However, a number of more recent publications provide further policy support for the development. These are set out below.

2.2 In July 2015, the Government re-emphasised the important economic role played by airports within the context of the overarching economic importance of improved transport connectivity in HM Treasury's *Fixing the Foundations: Creating a more prosperous nation*[2]:

"Infrastructure expands the productive capacity of the economy by reducing transaction costs and by integrating and enlarging markets. It raises the returns on private investment and enables greater specialisation and economies of scale. This chapter focusses on the importance of modern transport infrastructure."

"Transport has a vital role to play by bringing businesses and people closer together and fostering the agglomeration economies that make cities work. Transport connects people to jobs and products to markets, it underpins supply chains and logistics networks, and it is fundamental to domestic and international trade. The connectivity, condition and capacity of a country's transport network is therefore critical for productivity."

"Airports provide critical international connectivity. Aviation contributes £18 billion per year to the UK economy and supports 220,000 jobs. The connections created by air transport enable beneficial activities such as Foreign Direct Investment (FDI), business clusters and specialisation, as well as creating other positive spill-over effects. Air connectivity facilitates productivity benefits by boosting international trade. Around £4.1 trillion of goods now travel by air each year, equating to around 35% of all world trade by value. However, the Airports Commission's analysis suggests that the costs of not addressing capacity constraints in the future could amount to £18-20 billion of costs to users and providers of airport infrastructure, and £30-45 billion of costs to the wider economy."

[1] Ibid, Paragraph 1.60.
[2] HM Treasury, July 2015, paragraphs 5.1, 5.2 and 5.6.

2.3 As explained in the 2013 Need Statement and expanded on in Section 5 of this Update, London City Airport plays a vital role in supporting the important financial services cluster comprising the City of London and Canary Wharf as well as the wider economy of London more generally. CADP will ensure that the Airport has the infrastructure necessary to continue to support growth in this important economic sector and in the economy more generally.

Airports Commission

2.4 The Airports Commission, set up to identify a long term solution to maintaining the UK's global hub status, produced its final report at the end of June 2015. It recommended that a third runway be built at Heathrow but emphasised that it will take a decade or more to bring the new runway into operation[3]. The Government has committed to taking a decision on the recommendation by the end of 2015[4].

2.5 The Airports Commission also stressed the importance of air connectivity to the economy:

"Good aviation connectivity is vital for the UK economy. It promotes trade and inward investment, and is especially crucial for a global city like London. The service sector, whether the City, the media industry or universities, depends heavily on prompt face-to-face contact. There is strong evidence that good transport links, and especially aviation connectivity, make an important contribution to enhancing productivity, which is an important national challenge."[5]

and noted that:

"The London economy as a whole is driven by sectors which are heavily dependent on aviation, from financial and creative services to high value manufacturing. Rapid and direct access to the strongest possible aviation links will play an important role in maintaining London's status as a global business centre."[6]

2.6 In the light of the timescale over which a new runway could be brought into operation, the Airports Commission highlights the opportunity for other airports in the next 10 years:

[3] Airports Commission, Final Report, June 2015, Foreword, page 4.
[4] Fixing the Foundations: Creating a more prosperous nation, HM Treasury, paragraph 5.15.
[5] Airports Commission, Final Report, June 2015, Foreword, page 4.
[6] Ibid, paragraph 13.45

"The capacity constraints at Heathrow and Gatwick present an opportunity for other UK airports in the coming decade. This is particularly true for the largest airports, which benefit already from high passenger numbers and large route networks, as well as the airports whose passenger catchments overlap most fully with those of Heathrow and Gatwick."[7]

and notes that

"The other airports in the London system are developing business strategies to make best use of their capacity, and the government, and other stakeholders, could support them in doing so."[8]

2.7 Specifically, in relation to London City Airport, the Airports Commission notes that the CADP planning application has been refused by the Mayor of London but clearly sets out that it sees a role for the Airport in serving the needs of East London, and the new planned developments in the Royal Docks in particular, through providing business related air connectivity as well as serving the needs of local residents. The Commission noted the benefits which CADP could bring through allowing the operation of the next generation of aircraft with improved operational, as well as environmental, performance as such aircraft would be restricted by the existing infrastructure if CADP does not proceed:

"The recent planning application for the City Airport Development Programme (an extended terminal, a new taxi-way and additional parking stands for larger aircraft), which was supported by Newham Council, has been refused by the Mayor of London due to its possible noise impacts. This means that as things stand London City Airport would be limited in its ability to contribute further to improving long-haul connectivity. The development programme would have brought the eastern seaboard of the USA and Middle Eastern destinations within the range of direct flights from the airport (the current JFK flight requires a stop in Shannon on the flight out).

In the absence of this new development two key opportunities for London City Airport in the coming years will be the Custom House Crossrail station – which will provide faster travel times (via a Docklands Light Railway (DLR) connection) to the airport from the West – and the new Royal Albert Docks development, a planned new business district due to deliver over 3.2 million square feet of work, retail and leisure space, including 2.5 million square feet of prime office space into the airport's immediate catchment.

[7] Ibid, paragraph 16.41.
[8] Ibid, paragraph 16.46.

The Commission expects London City Airport to take advantage of these opportunities, while taking into account the needs of its local residents, to reinforce the airport's valuable connectivity and specialist business travel provision for London."[9]

2.8 Whatever the Government's final decision, the lengthy timescale over which a new runway could be provided highlights the importance of airports, like London City Airport optimising the use of existing runway capacity, in the intervening period to 2025 and beyond. CADP is vital to the Airport being able to do so. It should be noted that, in its Interim Report[10], the Airports Commission had assumed that London City Airport would make a contribution to meeting London's airport capacity needs up to its consented 120,000 annual aircraft movements.

General and Business Aviation

2.9 The APF also notes the economic value of business and general aviation[11]. More recently, the Government has set out is strategy for the General Aviation sector[12], which highlights the importance of ensuring that this sector can flourish and that sufficient infrastructure is in place in appropriate locations to facilitate the use of a modern aircraft fleet. If CADP did not proceed, London City Airport is ideally located to support an increase in such activity, so maximising the use of its existing infrastructure which is consistent with aviation policy more generally.

[9] Ibid, paragraphs 16.50 to 16.52.
[10] Airports Commission Interim Report, December 2013.
[11] Aviation Policy Framework, Department for Transport, March 2013, Paragraph 1.12.
[12] Department for Transport, General Aviation Strategy, March 2015.

Economic Policy

2.10 For the most part, economic policies for the Study Area remain as set out in the Need Statement (July 2013). However, there has been an update to the London Plan, which is the strategic plan setting out an integrated social, economic and environmental framework for the future development of London. A consolidated version of the London Plan was published in March 2015 (Consolidated with Alterations Since 2011: Revised early Alterations to the London Plan (2013), and Further Alterations to the London Plan (2014)). The policies towards aviation remain unchanged and continue to support improvements to London's airports to secure optimum efficiency. The consolidated London Plan also sets out a specific target to create 6,000 jobs and 11,000 new homes in the Royal Docks & Beckton Waterfront Opportunity Area[13]. Hence, the contribution of the proposed CADP1 to creating additional jobs in the area would be consistent with the economic development objectives of the London Plan as it could contribute over a quarter of the target number of jobs, once the Hotel related employment is included and before factoring in the wider economic stimulus in terms of attracting other employers to the area through the connectivity it will provide.

[13] Ibid, Annex 1.

3 UPDATED DEMAND FORECASTS

3.1 This section sets out the revised demand forecasts, which have been updated to take account of market developments at London City Airport since 2013 including the entry of Flybe into the market. The updated forecasts have been extended to 2025 to reflect the delays to the planning process and, consequently, the expected later delivery of the new infrastructure.

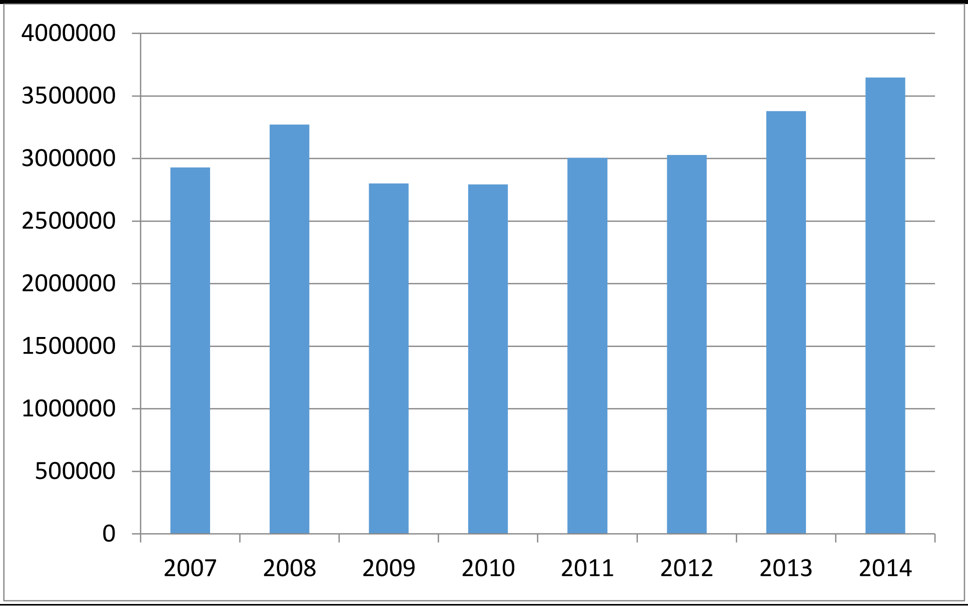
3.2 Changes to the original forecasts included in the Need Statement (July 2013) are indicated below. Where tables and figures replace those in the Need Statement, they are indicated by the suffix ‘A’ throughout this Update. Other tables not so marked represent additional information.

Market Performance 2014

3.3 In 2014, London City Airport passenger traffic at London City Airport reached a peak of 3.65 million passengers per annum, an 8% increase over 2013. In comparison, the number of passengers handled in 2012 was 3.03 million passengers. Over the period 2004-2014, the Airport grew at a CAGR[14] of 8.1%, even taking the fall in passenger numbers during the recession into account. The recent passenger growth far outstripped the growth seen across the London airports as a whole, which was 1.3% CAGR over the same period. The historic performance set out in in Figures 3.1 and 3.2 of the 2013 Need Statement have been updated in **Figures 3.1A** and **3.2A**. The aircraft movement figures include both movements associated with scheduled services and business aviation aircraft using the Jet Centre.

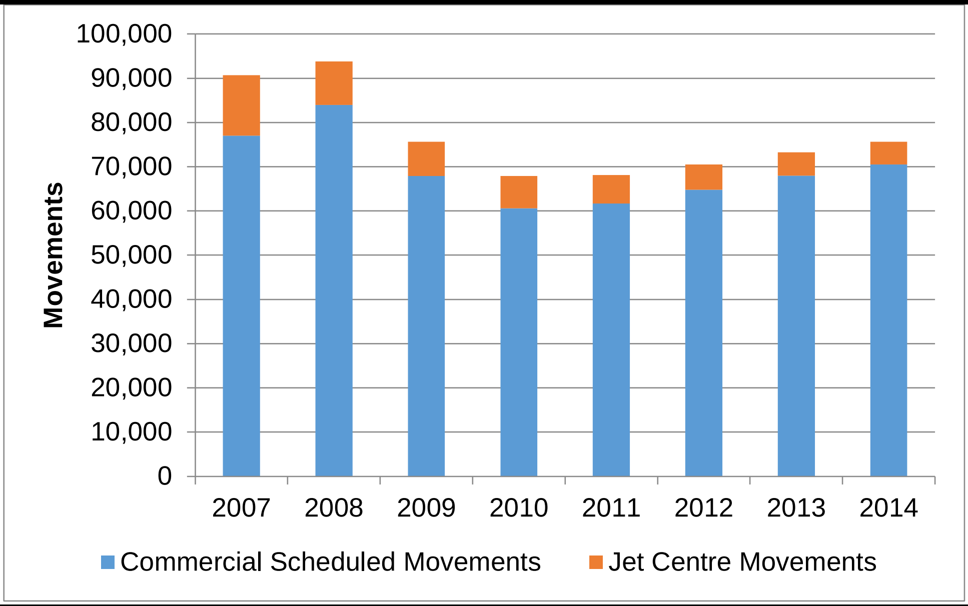
[14] Compound Annual Growth Rate.

Figure 3.1A: London City Airport Annual Passengers 2007-2014



Source: London City Airport

Figure 3.2A: Aircraft Movements 2007-2014



Source: CAA Statistics/London City Airport

3.4 2014 saw the resumption of the trend of airlines relocating services, such as the Swiss service from Basel, back from Heathrow to London City. This trend is expected to accelerate until any additional runway at Heathrow is in operation as airlines replace short haul services at Heathrow by more long haul services.

3.5 There have been some changes to the Airport's route network since 2012 and these are reflected in an updated **Table 3.1A** (replacing the original Table 3.1 of the 2013 Need Statement). New destinations are shown in red and those which have ceased since 2012 are struck through. The key routes to major business centres such as Zurich, Amsterdam, Edinburgh, Geneva, Dublin and Frankfurt, still account for 68% of all passengers using the Airport compared to 72% in 2012. These changes to the route network are not material to the overall role which the Airport plays.

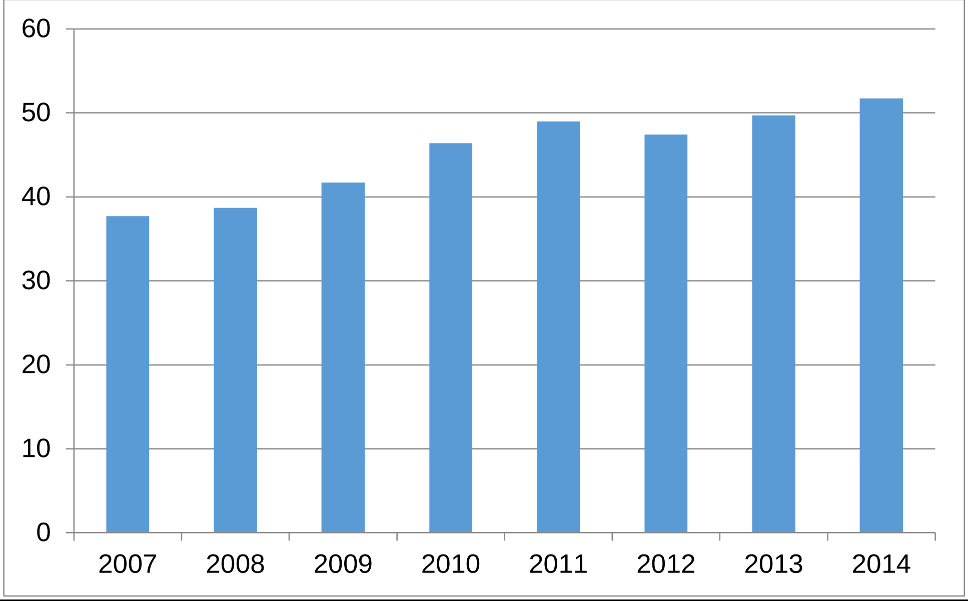
Table 3.1A: London City Airport Current Destination Served (July 2015)		
Aberdeen	Exeter	~~Munster~~
Amsterdam	Florence	Nantes
Angers	Frankfurt	New York (JFK)
Antwerp	Geneva	Nice
~~Avignon~~	Glasgow	~~Nuremberg~~
~~Barcelona~~	Granada	~~Paderborn~~
Basel	Guernsey	Palma
Berne	Hamburg	Paris (ORY)
Belfast (BHD)	Ibiza	~~Pau~~
Billund	Isle of Man	Quimper
~~Brest~~	Jersey	Rome (FCO)
~~Brive~~	~~Kristiansand~~	Rotterdam
~~Deauville~~	Luxembourg	Santorini
Dresden	Madrid	~~Stockholm~~
Dublin	Mahon	~~Toulon~~
~~Dundee~~	Malaga	Venice
Dusseldorf	Mykonos	Zurich
Edinburgh	Milan (LIN)	
Source: OAG		

3.6 The current mix of aircraft using the Airport in 2014 has been updated in **Table 3.2A**. Both the average size of aircraft and load factors have grown since 2012, which was impacted by a downturn in business travel during the Olympics. In 2014, the average load factor was 65%. The passengers per aircraft movement have been updated in **Figure 3.4A**.

Table 3.2A: Annual Movements[15] by Aircraft Type 2014 compared to 2012		
	Annual	
Aircraft Type	**2014**	**2012**
Airbus A318	1,042	1,058
ATR-42	1,108	1,468
ATR-72	0	8
BAe-146/Avro RJ	19,003	17,347
Dornier 328	2,432	4,361
Dornier 328 Jet	0	32
Bombardier Q400	4,965	3,548
Embraer E170	9,986	8,933
Embraer E190	19,351	13,745
Fokker 50	9,231	13,335
Saab 2000	3,397	940
Commercial/Scheduled	**70,515**	**64,775**
Hawker 800	1,427	1,528
Cessna Citation Excel	1,366	1,612
Dassault Falcon 7X	514	464
Dassault Falcon 50/900/2000	361	334
Cessna Citation other variants	971	1,112
Embraer 135	154	106
Other	329	571
Business Aviation	**5,122**	**5,727**
Total	**75,637**	**70,502**
Source: London City Airport		

[15] Test and training movements are excluded from the baseline and all future forecasts.

Figure 3.4A: Average Passengers per Scheduled Movement 2007-2014



Source: London City Airport

3.7 CAA Survey data for 2014 has been used to reassess the catchment area served by the Airport and this confirms that the catchment area remains substantially the same as assessed in 2012 and set out in the 2013 Need Statement (Figures 3.5 and 3.6). The Airport continues to draw a large number of passengers from the City of London (15.5% of all passengers), Westminster (11.7% of all passengers), and Tower Hamlets (11.1%). This compares to 13.1%, 12.7% and 10.5% respectively in 2012. Overall, 72% of passengers come from the central and eastern part of London, up from 70.9% in 2012, with 28% drawn from a wider catchment reflecting, in part, a number of unique destinations operated from the Airport, such as Antwerp and Berne[16]. It continues to capture a high share of demand in Tower Hamlets, Newham, the City of London and Greenwich and the remainder of the East London Boroughs.

3.8 Another important factor in considering the future prospects for the development of the route network at the Airport remains the erosion of the short haul network at Heathrow. Over the period 2005-2015, Heathrow now serves 19 fewer European/domestic destinations and, given that Heathrow is operating at full (over 98%) capacity, further erosion of the short haul network is highly likely in order that scarce slots can be used for more profitable long haul services at least up until an additional runway is operational, which is expected to be beyond 2025.

[16] The service to Berne operated in the summer only in 2014 but has resumed in July 2015.

3.9 Consistent with the expectations of the Airports Commission, London City Airport continues to have a much higher proportion of passengers travelling for business reasons than any other London airport at 52% as shown in the updated **Table 3.4A**, according to CAA survey data for 2014, with the next highest being Heathrow at 30%. The proportion of business passengers has fallen slightly from 54% in 2012, although the Airport's own data shows the proportion of business travellers to be 58% in March 2015. The Airport also has the highest proportion of foreign resident passengers using it after Heathrow. Even within the UK resident passenger category, a substantial proportion of these, particularly those resident in Scotland, are travelling inbound to London. Overall analysis of CAA survey data shows that 51% of all passengers were travelling inbound to London in 2014, principally Central London and the Central Business District, showing the importance of the Airport for bringing business to London. This compares to 60% recorded as inbound in 2012.

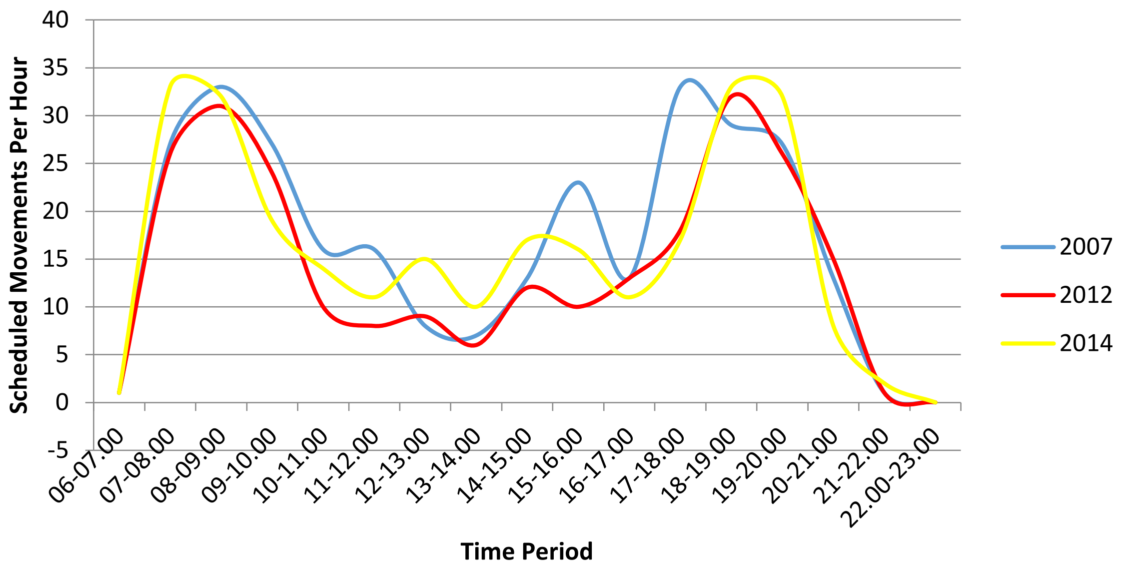
Table 3.4A: South East Airports Business/Leisure Proportions (2014)

	Foreign		UK	
Airport	**Business**	**Leisure**	**Business**	**Leisure**
London City	26%	19%	26%	29%
Gatwick	6%	22%	8%	64%
Heathrow	17%	42%	12%	28%
Luton	5%	19%	11%	65%
Stansted	7%	35%	9%	50%

Source: CAA Survey

3.10 The Airport remains predominantly a business airport and subject to strong early morning and evening peaks of demand. As anticipated, there has been some re-emergence of a mid-afternoon secondary peak of traffic as demand grows. The updated diurnal profile is shown in **Figure 3.9A**.

Figure 3.9A: Historic Diurnal Profile of Movements



Source: OAG

Future Demand Forecasts

3.11 In the light of the updated performance of the Airport in 2014, the demand projections have been refreshed and extended to 2025 to reflect the later delivery of the CADP infrastructure. We have taken note of the comments by the advisor to the London Borough of Newham that longer term forecasts are more usually produced using a top down allocation model. However, given the dependence of London City Airport on a small number of airlines and routes, and given its particular characteristics, a semi-bottom up approach[17] is still considered to be the most appropriate approach to prepare detailed year by year forecasts over a 10 year period.

[17] Top down forecasts are produced by examining overall market growth rates and estimating the market share for an airport as a share of the national total. Bottom up forecasts are produced at the individual route level based on how airlines are expected to grow their networks.

3.12 The econometric basis for the forecasts remains the most recent national air passenger forecasts published by the Department for Transport (DfT) in January 2013[18]. Although the Airports Commission has produced its own demand projections under a number of market growth scenarios, their core Assessment of Need case shows very similar levels of demand across the UK at 2050 as the DfT (470 million passengers[19] compared to 480 million passengers).

3.13 The methodology used to produce the forecasts remains the same as set out in the 2013 Need Statement, taking 2014 as the updated base year, and specific forecasts have been prepared for 2020, 2023 and 2025 for planning purposes with other years interpolated. As previously, it is assumed that the economy and population in the vicinity of the Airport will grow faster than the national average and growth rates have been adjusted accordingly by 1% over the period to 2025. This is consistent with the faster than average growth seen at London City over the last decade. The resulting uplift to the number of passengers forecast to be using the Airport overall is only 0.3% over the period to 2020, and less thereafter (0.2% uplift was assessed in the 2013 Need Statement). A new category of super-high frequency (more than 17 flights per day) has been considered in terms of the share of the market which might be captured by such flights in order to reflect the growth in frequency on core routes, such as Edinburgh. Such super-high frequency flights are assumed to be able to capture even more of the local market (20% above level of market capture previously defined high frequency flights for each district).

3.14 Overall, by 2023, the forecasts are restricted by the Airport capacity available given the movement limit of 120,000 noise factored movements per annum and limits on the size of aircraft which can use the Airport.

Fleet Mix

3.15 The expectations as to the future fleet mix have been updated taking into account the entry of Flybe into the London City market. The expectation that airlines will introduce new generation larger Code C aircraft remains as set out in the original Need Statement, including that the Bombardier C-Series which will be introduced by Swiss in 2016. The fleet replacement strategies of Cityjet, British Airways Cityflyer and Flybe may include other types, such as those in the Embraer family. In general, there remains the expectation of that new types of aircraft will be introduced and that jet aircraft will make up a higher proportion of the fleet at London City, although the introduction of such types will remain limited by the inability of larger wingspan aircraft to taxi in front of the existing West Pier.

[18] UK Aviation Forecasts 2013, Department for Transport.
[19] Airports Commission, Final Report, paragraph 3.52.

3.16 The **With CADP Core Case** forecast scenario, is based on the most likely fleet replacement strategies for the airlines and takes into account the extent to which the infrastructure at the Airport will allow the introduction of larger aircraft in peak periods.

3.17 However, there is some uncertainty regarding the rate of introduction of these new larger aircraft, particularly beyond 2023. There could be a faster introduction of larger and/or newer types and, possibly, a greater number of such aircraft operating at the Airport, subject to the limits of the infrastructure being provided in peak periods. This alternative view of the future fleet mix is reflected in a **With CADP Faster Move to Jets Sensitivity Test**.

3.18 In the **Without CADP Core Case**, the airlines' ability to re-fleet will be constrained by the existing infrastructure. However, as discussed later in this section, there would be scope for an increase in the number of business aviation movements using the Jet Centre, which is reflected in the **Without CADP Higher Jet Centre Sensitivity Test**.

Load Factor

3.19 Taking into account the recent growth in load factors observed at the Airport, the load factors assumed in future have been adjusted. In the **With CADP Core Case**, the maximum average annual load factor for business routes is assumed to be in the range of 64-65% from 2020 to 2025, reflecting the average levels seen on non-leisure routes in 2014. This is up from the 62% load factor observed in 2012. For the leisure route forecasts, this figure is higher however, set at 78%, representing the upper bound of the load factors currently seen. The resultant average load factors across the whole network are lower as not all routes sustain load factors up to the maximum when frequencies are increased. As with the original forecasts, peak period load factors used in the assessment of capacity are higher at 85% across all peak period flights in order to provide a realistic assessment of the peak loading on infrastructure during the peak periods on a typical busy day.

3.20 In the **Without CADP Core Case**, it is anticipated that there will be further load factor growth as airlines will be constrained from introducing additional frequencies of services due to infrastructure constraints.

3.21 Given recent strong growth in load factors observed at the Airport, it is possible that load factors could continue to grow even With Development. Hence, a **With CADP Higher Passenger Sensitivity Test** has been developed in which the maximum average year round load factor could increase to 68% by 2020, growing to 72% by 2025 for the non-leisure routes, with a resultant increase in the outturn average load factor across all routes to 67% once the effect of some routes operating below the maximum year round average is accounted for, due to the combination of aircraft size and frequency. These increases in average load factor would be driven by increased load factors at off-peak times as peak period load factors would still be constrained by the realistic upper bound of 85% given the specific characteristics of the Airport's peak period traffic, with its predominance of business travel and a high proportion of full fare ticket holders.

Core Case Planning Forecasts

3.22 Forecasts have been prepared for the assessment years 2020, 2023 and 2025 to reflect the completion of key phases in the construction of the proposed CADP1. The passenger and movement forecasts for the **With CADP Core Case** and for the **Without Core CADP Case** are summarised in the updated **Table 3.9A**. In the without development case, both the number of scheduled aircraft movements and the size of aircraft which can be operated are constrained by the existing infrastructure, as explained in the next section.

3.23 The detailed fleet mix projections to inform the environmental assessment in the UES have been updated accordingly and these are shown in the updated **Table 3.10A** for the **With CADP Core Case** and in **Table 3.11A** for the **Without CADP Core Case**. In addition, there could be up to 200 test and training movements each year under either scenario and these are not included in the movement numbers (and which were also not included in the movement numbers set out in the 2013 Need Statement).

3.24 In the With CADP Core Case, taking into account the mix of aircraft expected to use the Airport, it is projected to reach its movement limit of 120,000 annual noise factored aircraft movements by 2023, with displacement of business aviation activity by commercial scheduled services thereafter over the period to 2025 at which point the Airport would be handling approximately 111,000 total aircraft movements. This remains the same as in the 2013 Need Statement in terms of the ultimate movement capacity provided by CADP. Even with the proposed CADP in place, the Airport will be operating under a degree of capacity constraint from 2020, hence the slowing of growth beyond this point. As previously, high and low econometric forecasts have been not produced as the Airport would reach its consented movement limit in any event over a similar timescale.

Table 3.9A: London City Airport Apron Core Case Planning Application Forecasts							
	2014	2020		2023		2025	
	Baseline	With CADP	Without CADP	With CADP	Without CADP	With CADP	Without CADP
Scheduled Movements	70,515	92,820	84,940	107,120	86,050	108,250	86,050
Passengers	3,649,000	5,075,000	4,601,000	5,871,000	4,715,000	5,994,000	4,785,000
Average Load Factor	65.4%	61.5%	62.5%	61.8%	63.1%	62.0%	64.0%
Business Aviation Movements	5,122	8,300	8,300	3,880	8,500	2,800	9,000
Source: York Aviation							

Note: Test and Training Movements are excluded

Table 3.10A: With CADP Core Case Annual Movements by Aircraft Type With Development			
Aircraft Type	**2020 Annual**	**2023 Annual**	**2025 Annual**
Airbus A318	1,220	1,220	1,220
ATR-42	3,330	4,990	4,990
Saab 2000	3,330	3,330	3,330
Bombardier Q400	16,630	25,500	23,290
Canadair CS100/Embraer E2	6,100	13,310	17,750
Embraer E170	8,320	3,330	3,330
Embraer E190	53,780	55,440	54,340
Dornier 328	1,110	-	-
Commercial/Scheduled	**93,820**	**107,120**	**108,250**
Challenger 350	2,240	1,050	760
Citation Sovereign	2,220	1,040	750
Citation XLS	1,370	640	460
FA7X	1,210	570	410
Phenom 300	920	430	310
ERJ Legacy 600	340	160	120
Business Aviation	**8,300**	**3,880**	**2,800**
Total	**102,120**	**111,000**	**111,050**
Note: Totals may not sum due to rounding			
Source: York Aviation			

Table 3.11A: Without CADP Core Case Annual Movements by Aircraft Type With Development			
Aircraft Type	2020 Annual	2023 Annual	2025 Annual
Airbus A318	1,220	1,220	1,220
ATR-42	3,880	4,990	4,990
Saab 2000	2,770	3,330	3,330
Bombardier Q400	11,640	11,640	11,640
Canadair CS100/Embraer E2	6,100	6,650	6,650
Embraer E170	13,860	13,860	13,860
Embraer E190	44,360	44,360	44,360
Dornier 328	1,110	0	0
Commercial/Scheduled	**84,940**	**86,050**	**86,050**
Challenger 350	2,240	2,300	2,430
Citation Sovereign	2,220	2,270	2,400
Citation XLS	1,370	1,400	1,480
FA7X	1,210	1,240	1,320
Phenom 300	920	940	990
ERJ Legacy 600	340	350	370
Business Aviation	**8,300**	**8,500**	**9,000**
Total	**93,240**	**94,550**	**95,050**
Note: Totals may not sum due to rounding			
Source: York Aviation			

3.25 The updated expected breakdown of passengers by route at 2025 is shown in **Table 3.12A**, including expected frequencies of service by route and aircraft type(s).

Table 3.12A: Forecast Passengers by Route and Flight Frequencies With CADP Core Case 2025				
	Weekday Deps	Forecast Passengers	Capacity Constrained	Aircraft Type
Aberdeen	4	100,400		Q400
Amsterdam	16	563,700	✓	E190/E2
Antwerp	3	70,300		E190/E2
Barcelona	2	70,500	✓	E190/E2
Basel/Berne	2	36,000	✓	S2000
Belfast (BHD)	5	169,000	✓	Q400/E190/E2
Berlin	3	79,800	✓	Q400
Billund	2	26,600		ATR-42
Cologne/Bonn	3	84,100	✓	Q400
Copenhagen	3	105,700	✓	E190/E2
Cork	3	84,100	✓	Q400
Dublin	14	493,200	✓	E190/E2
Dusseldorf	5	135,200	✓	Q400/E170
Edinburgh	18	591,000	✓	Q400/E190/E2
Florence	2	70,500	✓	E190/E2
Frankfurt	9	314,900	✓	E190/E2/E170/C100
Geneva	8	252,100		E190/E2/C100
Glasgow	12	394,000	✓	Q400/E190/E2
Guernsey	2	25,300		ATR-42
Hamburg	2	36,000	✓	ATR-42
Hanover	3	64,300		Q400
Helsinki	2	62,100		E190/E2
Isle of Man	4	71,900	✓	S2000
Jersey	3	53,900	✓	ATR-42
Luxembourg	8	212,800	✓	Q400
Lyon	3	96,700		E190/E2
Madrid	3	105,700	✓	E190/E2
Milan (LIN)	4	140,900	✓	E190/E2
Munich	5	150,300	✓	Q400/E190/E2
New York (JFK)	2	23,000	✓	A318
Nice	2	70,500	✓	E190/E2
Paris (ORY)	4	121,300		E190/E2
Rome (FCO)	2	70,500	✓	E190/E2
Rotterdam	9	213,200		E190/E2
Shannon	2	39,200		Q400

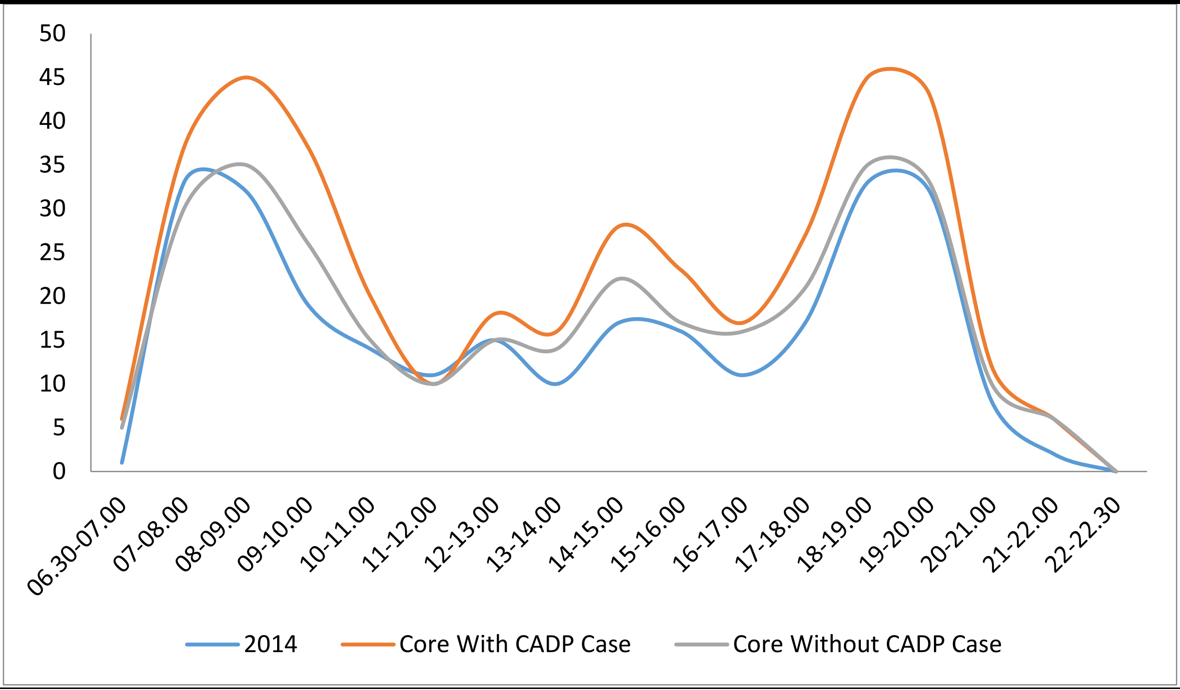
Stockholm (ARN)	3	105,700	✓	E190/E2
Warsaw	2	70,500	✓	E190/E2
Zurich	12	453,000	✓	E190/E2/C100
Other Leisure	4	169,500	n/a	E190/E2
Source: York Aviation				

3.26 Based on the passenger demand forecasts and the expected schedule of airline operations with aircraft types able to use the Airport, the average numbers of passengers per scheduled movement is expected to increase from approximately 52 in 2014 to 55 in 2025 in the **With CADP Core Case** and 56 reflecting the effect of constraint on the number of movements in the **Without CADP Core Case**. As a consequence, in both cases, the number of passengers handled would be greater reaching 5.99 mppa with development and 4.79 mppa without development, reflecting the increased aircraft load factors observed, compared to 5.87mppa and 4.44mppa respectively in the 2013 Need Statement.

Expected Profile of Demand

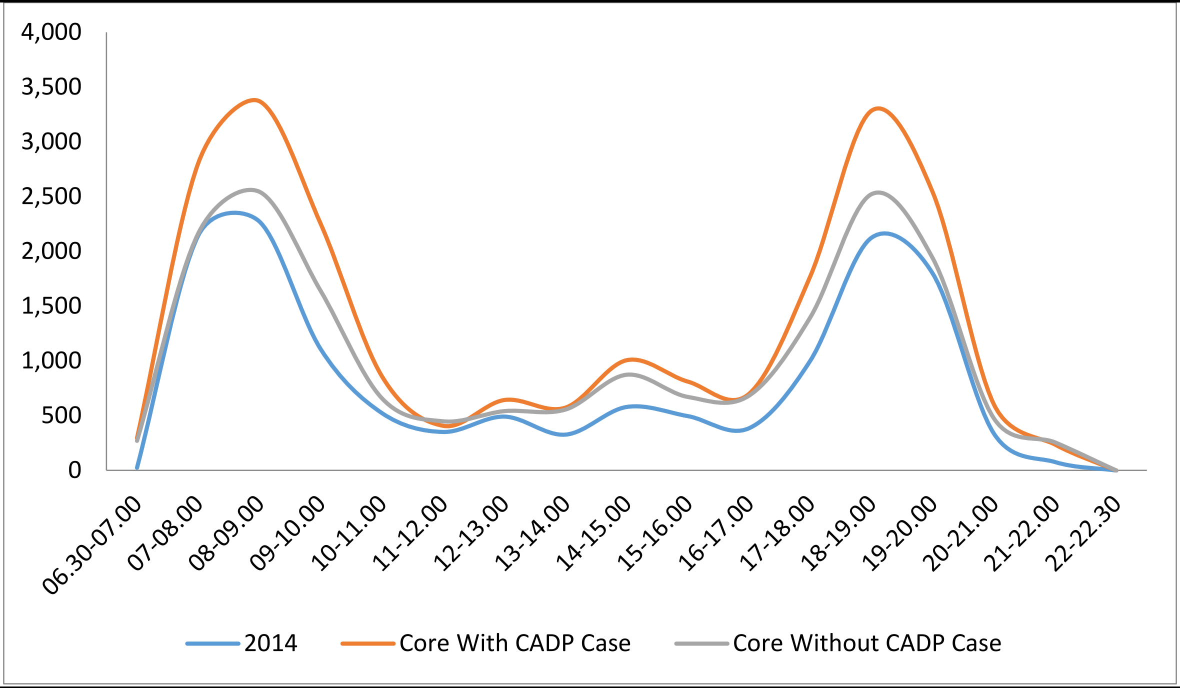
3.27 Based on the updated **With CADP Core Case**, the expected profile of demand over a typical busy day is shown in **Figure 3.10A** for aircraft movements and **Figure 3.11A** for passengers.

Figure 3.10A: Future With Development Diurnal Profile of Movements (movements per hour)



Source: York Aviation

Figure 3.11A: Future With Development Diurnal Profile of Passengers (passengers per hour)



Source: York Aviation

Business Aviation

3.28 The business aviation market in the UK has continued to exhibit a slow recovery from the recession[20] and this, in large part, explains the lack of growth in such movements at the Airport since 2012. London City Airport has also not, until recently, placed emphasis on this segment of its market in terms of securing growth and has only recently appointed a new Jet Centre Director.

[20] The Economic Value of General Aviation in the UK, York Aviation for the Department of Transport, February 2015, paragraphs 4.8 to 4.14.

3.29 With development, under the Core case or with a Faster Move to Jets, the projections for growth in core scheduled services mean that business aviation movements would be constrained within the 120,000 noise factored movement cap. Business aviation movements would be constrained within the total to 2,800 a year by 2025 in the **Core With Core CADP Case** (slightly lower than 3,920 business aviation movements in 2023 assessed in the 2013 Need Statement), and to only 50 in the **With CADP Faster Move to Jets Sensitivity Test** case, as scheduled movements will squeeze out business aviation traffic to below current activity levels within the noise factored movement limit.

3.30 If CADP does not proceed, it is still considered reasonable to assume that the Airport could at least regain its share of the business aviation market to 2010 levels of around 8,000 movements a year over the next few years and then see growth to 9,000 business aviation movements by 2025, i.e. an average annual growth rate of 6% per annum, which is the same number as assumed in the 2013 Need Statement. This is reflected in the **Without CADP Core Case** as there will be spare runway capacity available due to the infrastructure constraints on the ability to handle scheduled aircraft operations. It should be noted that historic business aviation movements were substantially higher than this, peaking at over 13,000 such movements.

3.31 There would be scope for further growth in business aviation movements using the existing infrastructure in the without development scenario, should permission for CADP1 be refused, up to an estimated 17,000 movements a year. This level of business aviation activity would be attainable through adjustment of the pricing for the Jet Centre to attract a larger share of the overall London area business aviation market, estimated at approximately 100,000 aircraft movements in 2014 by London City Airport. If the CADP development does not proceed, the Airport could adopt business strategies designed to make fuller use of its existing infrastructure to secure growth up to this level of movements over the longer term. Hence, consideration has also been given to a **Without CADP Higher Jet Centre Growth Sensitivity Test**.

Sensitivity Tests

3.32 As noted above, to assist with the Environmental Impact Assessment process for CADP, two with development sensitivity tests have been prepared. These are in addition to the **Without CADP Higher Jet Centre Growth Sensitivity Test**.

With CADP Faster Move to Jets Sensitivity Test

3.33 As set out in paragraph 3.17, there is some uncertainty regarding the rate at which airlines will introduce more of the new generation larger Code C jet aircraft into their fleets. In order to reflect the effect of more of these new generation jet aircraft in the mix at 2025, replacing both some other jet and turboprop types, a **With CADP Faster Move to Jets Sensitivity Test** has been developed. Infrastructure constraints would ultimately limit the introduction of these larger types. It is estimated that the ceiling on the introduction of larger aircraft would be 7 larger Code C aircraft on the ground simultaneously in peak periods compared to 5 assumed in the **With CADP Core Case** forecast[21]. This is one less such movement on the ground simultaneously than assumed in the original High Passenger Sensitivity Test reported in the 2013 Need Statement due to a refined estimate of the interaction of stand occupancy and the runway movement rate.

3.34 For the purpose of this sensitivity test, it is assumed that these larger Code C types would replace some more of E190 operations assumed in the **With CADP Core Case** forecasts and a number of Q400 movements. This reflects the circumstance where the market grows more quickly on the core routes resulting in the airlines upscaling the size of the aircraft more quickly than would be expected under the **Core With CADP Case** or opting to move to new generation aircraft in greater numbers due to their lower operating costs. This could arise from further changes in the fleets operated by British Airways, Flybe, Lufthansa or other airlines but the extent of changes to the fleet will be limited by the physical infrastructure and the need to optimise capacity. As a consequence, further increases to the size of aircraft would have only a negligible impact on the annual passenger forecast in 2025 of 6 million passengers, as the E2 aircraft do not necessarily represent the same uplift in passengers per movement as the C Series. As a result of there being more jet aircraft under this sensitivity test, the number of actual annual movements which can be accommodated under the noise factored movement limit is slightly lower at 107,730 due in large part to the Jet Centre movements being crowded out by the increased number of jets under the current noise factoring system. The fleet mix for the **With CADP Faster Move to Jets Sensitivity Test** is set out in **Table 3.15**. It is considered that such changes in fleet could arise by 2025 or thereafter but there remains a degree of uncertainty regarding the timing of the introduction of these newer types.

[21] The precise number simultaneously on stand may vary slightly dependent on the precise schedule as the limit is the hourly runway movement rate.

Table 3.15 WITH CADP Faster Re-fleeting Annual Aircraft Movements	
Aircraft Type	**2025 Annual**
Airbus A318	1,220
ATR-42	4,990
Saab 2000	3,330
Bombardier Q400	16,630
Canadair CS100/Embraer E2	24,400
Embraer E170	57,110
Embraer E190	12,200
Dornier 328	0
Commercial/Scheduled	**107,680**
Challenger 350	10
Citation Sovereign	10
Citation XLS	10
FA7X	10
Phenom 300	10
ERJ Legacy 600	0
Business Aviation	**50**
Total	**107,730**

Higher Passenger Sensitivity Test

3.35 As set out at paragraph 3.21, given recent strong growth in load factors seen at the Airport, it is possible that there would be further growth even with development. The implications of further load factor growth, as outlined, to an average across all routes of 67% would see the annual passenger volume under the With Development Core case reach around 6.5 mppa in 2025 in the **With CADP Higher Passenger Sensitivity Test**. The effect would also be of the same order under the With CADP Faster Move to Jets Sensitivity Test case.

3.36 There would be negligible impact on passengers in peak periods, however, as peak hour load factors are not expected to exceed the 85% already assumed. Growth in load factors is expected to arise principally on off-peak flights.

3.37 Without development, load factors would be constrained below this level due to the levels of congestion in the terminal building as will be explained in the next section.

Summary

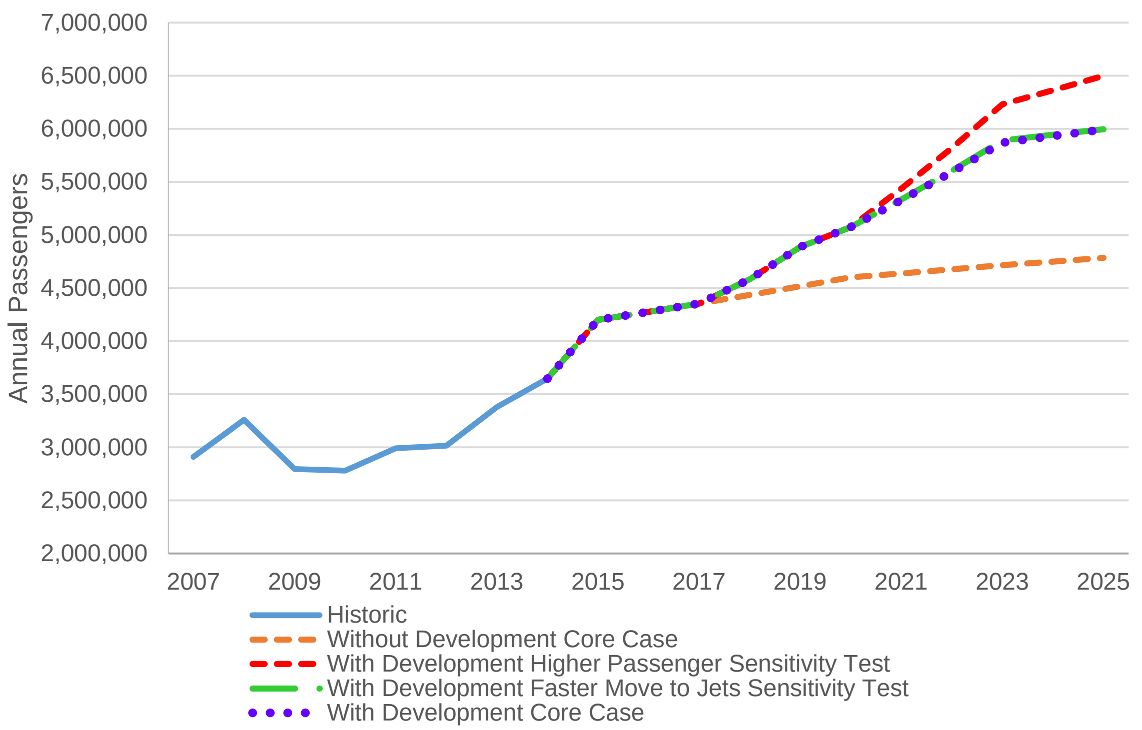
3.38 Overall, the refreshed core forecasts are virtually identical to the original core forecasts as set out in the 2013 Need Statement. The refreshed with development sensitivity tests are broadly similar to those previously presented as they comprise more new generation jets and higher passenger volumes respectively.

3.39 The **Without CADP Higher Jet Centre Sensitivity Test** is reflective of greater consideration having been given by the Airport as to how to maximise the use of its existing runway capacity if CADP is not consented. This represents a realistic fall back scenario.

3.40 The differences between the **With** and **Without CADP Core Cases** for passengers and scheduled movements are illustrated in updated **Figures 3.12A** and **3.13A**. With development, the Airport will reach approximately 6 mppa, 108,000 scheduled movements and 111,000 total aircraft movements[22] in 2025. Without Development, the throughput of the Airport would be limited to approximately 4.79 mppa, 86,000 scheduled movements and 95,000 total aircraft movements in 2025. In the event of higher Jet Centre movements being attracted, the total number of annual aircraft movements without development in 2025 would rise to 103,000.

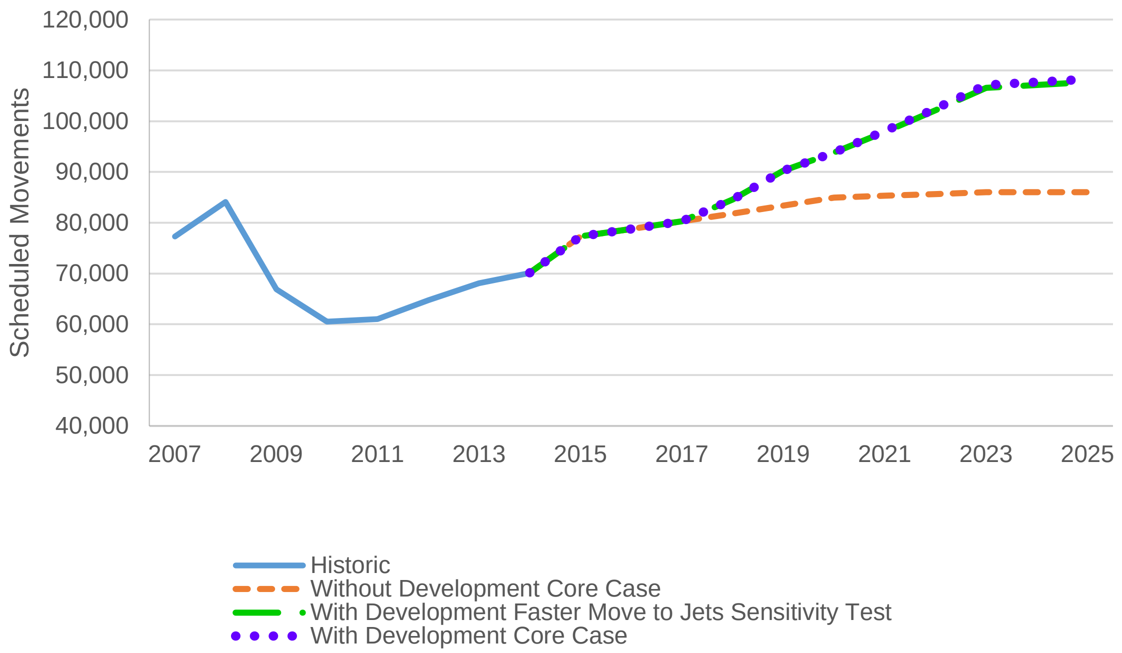
[22] Equivalent to 120,000 noise factored movements.

Figure 3.12A: Passenger Forecasts With and Without Development



Source: York Aviation

Figure 3.13A: Scheduled Movement Forecasts With and Without Development



Source: York Aviation

3.41 The forecasts set out above have been used in the UES, which also includes the assessment of the implications for the Public Safety Zone in Chapter 7.

4 AIRPORT INFRASTRUCTURE CAPACITY AND REQUIREMENTS

4.1 The requirement for the additional infrastructure proposed under CADP remains as set out in the 2013 Need Statement. However, the delay to the construction of CADP, as a result of the appeal, means that the existing Airport infrastructure will be under increasing pressure pending the ability to increase the capacity. The capacity assessment has been updated, taking into account the delay to the delivery of the project and the updated passenger forecasts. This is presented in updated 'traffic lights' charts, which replace those at Section 4 of the 2013 Need Statement. In overall terms, the assessment of runway capacity and apron capacity requirements remains unchanged.

Current Capacity

Apron

4.2 There are currently 18 operational aircraft stands. Allowing for some buffer to accommodate delayed or long-stopping aircraft, these stands are largely fully used today. Stand capacity, in terms of both numbers and the size of stands, is the principal constraint on the throughput of the Airport in the absence of CADP.

Runway

4.3 There is no change to the previously assessed capacity of the runway. The introduction of C-Series aircraft by Swiss, operating in peak periods, from late 2016 will place the existing runway capacity under pressure due to the increase in backtracking required. An additional taxiway link is proposed[23] to improve operational efficiency and increase resilience given the introduction of such aircraft in 2016. This has no impact on overall runway capacity.

[23] Notified to LBN August 2015.

Terminal

4.4 The growth in passengers seen in the intervening period since 2012 is placing terminal capacity under pressure. This has implications for the ability of the Airport to maintain its customer proposition, even allowing for the operational improvements implemented and the refurbishment of the West Pier due for completion in late 2016. The extent to which facilities will increasingly be operating at below satisfactory standards of service is shown in the 'traffic lights' in updated versions of **Figures 4.3A** and **4.4A**, which show the level of congestion to be expected even with the Without CADP forecasts. These reflect the completion of the improvements to the West Pier in late 2016 and other recent operational improvements, e.g. to security.

Figure 4.3A: Terminal Arrivals Capacity Without Development

Forecast Year			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
MPPA			4,200,000	4,277,302	4,356,026	4,436,199	4,517,848	4,601,000	4,638,690	4,676,690	4,715,000	4,749,871	4,785,000
Peak RWY Rate (Commercial Flights)			35	35	35	35	35	35	35	35	35	35	35
Arrival Pax Peak			1,415	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Facility	Current Capacity												
Numbers of Contact Gates	14		13	13	13	13	13	13	13	13	13	13	13
No. of Non-Contact Stands	4		3	3	3	3	4	4	4	4	4	4	4
Pier West Corridor	300												
Pier East Corridor	200												
Domestic Entry Channels	75												
CTA Entry Channel	75												
Immigration	11		11	11	12	12	13	14	14	14	14	14	14
Domestic Baggage Reclaim Belt	1		1	1	1	1	1	1	1	1	1	1	1
Domestic Baggage Pick-Off & Circulation													
International Baggage Reclaim Belt	2		2	2	2	2	2 (poss 3)	2 (poss 3)	2 (poss 3)	2 (poss 3)	2 (poss 3)	2 (poss 3)	2 (poss 3)
International Baggage Pick-Off & Circulation													
Blue Channel Exit	60												
Green Channel Exit, (Customs Search Area)	40												
Domestic Channel Exit	60												
Arrivals Concourse, (Circulation & Meeting Zone)	225		120	121	123	125	127	129	130	130	131	131	132
Combined L/S Dep' Circ' & Arr' Concourse Peak	225		175	176	177	178	179	180	181	182	183	184	186

Source: York Aviation

Figure 4.4A: Terminal Departures Capacity Without Development

Forecast Year		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
MPPA		4,200,000	4,277,302	4,356,026	4,436,199	4,517,848	4,601,000	4,638,690	4,676,690	4,715,000	4,749,871	4,785,000
Peak RWY Rate (Commercial Flights)		35	35	35	35	35	35	35	35	35	35	35
Departure Pax Peak		1,415	1,419	1,424	1,428	1,433	1,438	1,438	1,438	1,438	1,438	1,438
Facility	Current Capacity											
Check-In Desks	19	19	19	19	19	19	19	19	19	19	19	19
Self-Service Check-In Kiosks	26											
Baggage Sortation & Make-Up												
Landside Departures, (Circulation & Dwelling)	225	70	70	70	70	70	70	71	71	71	71	71
Security Channels	4	4	4	4	4	4	4	4	4	4	4	4
Airside Departure Lounge	1,000	1,123	1,137	1,151	1,165	1,179	1,194	1,194	1,194	1,194	1,194	1,194
Boarding Gate Hold Rooms	65											
Numbers of Contact Gates	14	13	13	13	13	13	13	13	13	13	13	13
No. of Non-Contact Stands	4	3	3	3	3	4	4	4	4	4	4	4
Combined L/S Dep' Circ' & Arr' Concourse Peak	225	175	176	177	178	179	180	181	182	183	184	186

Source: York Aviation

4.5 In the absence of development and based on the pattern of operations currently, it is now considered that the airside infrastructure could eventually support the Airport handling up to 4.79 mppa given the existing apron stand capacity, as set out in Table 3.9, but at considerable detriment to the quality of service offered to passengers within the terminal as illustrated by Figures 4.3A and 4.4A above.

Capacity Required

4.6 The capacity requirements to enable the Airport to achieve its consented noise factored movement limit remain as set out in the 2013 Need Statement. However, the effect of increases in aircraft load factors and marginally slower growth in aircraft movements mean that the apron constraint on aircraft movements has not quite bitten in 2015 as originally envisaged. However, shortage of aircraft stands will act as some constraint on growth in aircraft movements until the first phase of additional apron capacity (3 stands) can be delivered during 2018. As set out in the original Need Statement, the Phase 1 development will provide capacity for approximately 5 mppa to be handled at levels of service consistent with the Airport's high standard of service proposition to meet the requirements of business travellers, for which achieving the fast kerb to aircraft (and vice versa) transit times is fundamental. It also ensures that the Airport has sufficient stands of the right size to accommodate the airlines' planned and anticipated updating of their fleets in the medium term.

4.7 An updated assessment of the terminal capacity 'traffic lights' on the basis of two phase construction is set out in updated versions of **Figures 4.10A** and **4.11A** relating to the **With CADP Core Case**, which shows (in red) the extent to which the terminal will be operating at below the target levels of service until Phase 1 is complete and pending completion of Phase 2.

4.8 The Updated Construction Programme shows the additional 4 apron stands at Phase 2 being completed in late 2020 and the Eastern Terminal extension in late 2022. This could act as a further constraint on growth, particularly as airlines other than Swiss are expected to start to introduce larger Code C aircraft into their fleets from around 2020. Hence, a further sensitivity test was developed to consider the effect of an earlier completion of the Phase 2 development with the additional stands delivered by early 2020 and the completion of the terminal works in early 2021 (the **With CADP Single Phase Development (Accelerated Construction) Sensitivity Test**). In this case, there would be a difference in the demand projected to use the Airport in 2020 of around 300,000 passengers and 6,650 scheduled aircraft movements, albeit at lower than desirable standards of passenger comfort due to the timing when the Eastern Terminal extension would be completed.

Figure 4.10A: Terminal Arrivals Capacity With Development

Forecast Year			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
MPPA			4,200,000	4,277,302	4,356,026	4,583,589	4,886,394	5,075,000	5,327,556	5,592,681	5,871,000	5,932,181	5,994,000
Peak RWY Rate (Commercial Flights)			35	35	35	37	39	41	42	43	44	45	45
Arrival Pax Peak			1,415	1,429	1,444	1,487	1,703	1,920	1,923	1,926	1,929	1,929	1,929
Facility	**Current Capacity**	**Capacity With Ph1 & Ph2 Works**											
Numbers of Contact Gates	14	21	13	13	13	13	13	13	13	19	19	19	19
No. of Non-Contact Stands (20% of demand = OK)	4	4	3	3	3	4	6	8	8	3	3	4	4
Pier West Corridor	300	300											
Pier East Corridor	200	400											
Domestic Entry Channels	75	75											
CTA Entry Channel	75	75											
Immigration	11	18	11	11	12	12	14	16	16	16	16	16	16
Domestic Baggage Reclaim Belt	1	1	1	1	1	1	1	1	1	1	1	1	1
Domestic Baggage Pick-Off & Circulation													
International Baggage Reclaim Belt	2	3	2	2	2	2 (poss 3)	2 (poss 3)	3	3	3	3	3	3 (poss 4)
International Baggage Pick-Off & Circulation													
Blue Channel Exit	60	60											
Green Channel Exit, (Customs Search Area)	40	40											
Domestic Channel Exit	60	60											
Arrivals Concourse, (Circulation & Meeting Zone)	225	225	120	121	121	121	132	143	148	153	158	161	165
Combined L/S Dep' Circ' & Arr' Concourse Peak	225	225	175	178	181	186	205	225	227	N/A from 2022 with completion of East Terminal Extension			

Source: York Aviation

Figure 4.11A: Terminal Departures Capacity With Development

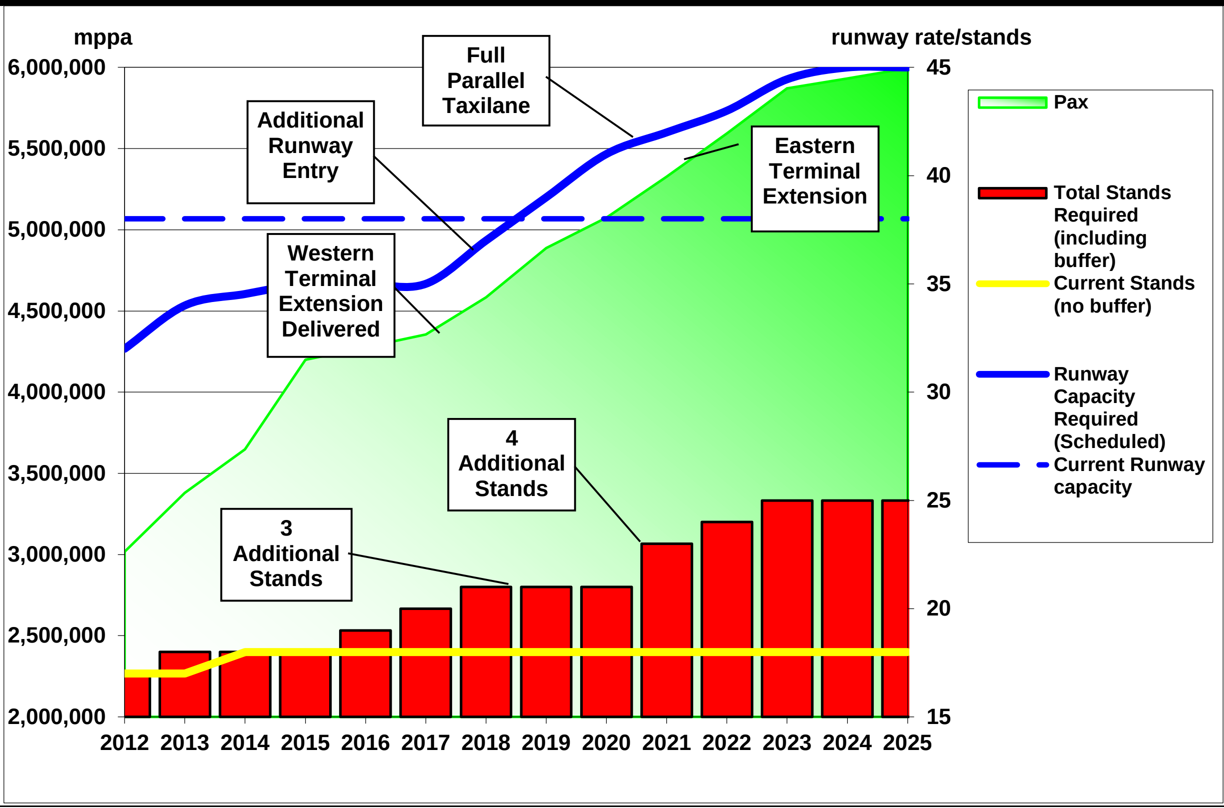
Forecast Year			2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
MPPA			4,200,000	4,277,302	4,356,026	4,583,589	4,886,394	5,075,000	5,327,556	5,592,681	5,871,000	5,932,181	5,994,000
Peak RWY Rate (Commercial Flights)			35	35	35	37	39	41	42	43	44	45	45
Departure Pax Peak			1,415	1,429	1,444	1,487	1,703	1,920	1,923	1,926	1,929	1,929	1,929
Facility	**Current Capacity**	**Capacity With Ph1 & Ph2 Works**											
Check-In Desks	19	19	19	19	19	19	19	19	19	20	20	20	20
Self-Service Check-In Kiosks	26	30+											
Baggage Sortation & Make-Up													
Landside Departures, (Circulation & Dwelling)	225	225	70	72	74	76	83	90	92	94	96	96	96
Security Channels	4	6	4	4	4	4	5	6	6	6	6	6	6
Airside Departure Lounge	1,000	1,500	1,123	1,137	1,152	1,186	1,325	1,464	1,485	1,506	1,528	1,533	1,539
Boarding Gate Hold Rooms	65	80											
Numbers of Contact Gates	14	21	13	13	13	13	13	13	13	19	19	19	19
No. of Non-Contact Stands (20% of demand = OK)	4	4	3	3	3	4	6	8	8	3	3	4	4
Combined L/S Dep' Circ' & Arr' Concourse Peak	225	225	175	178	181	186	205	225	227	N/A from 2022 with completion of East Terminal Extension			

Source: York Aviation

4.9 On completion of the second phase, it is considered that the new infrastructure provided will also be capable of accommodating the passenger numbers forecast under the **With CADP Higher Passenger Sensitivity Test** on the basis of either fleet mix and as the peak period load factors are not expected to rise above those assumed in the core case in any event. Hence, the assessment of the capability of the terminal infrastructure remains as shown in Figures 4.10A and 4.11A This is because airlines need to retain a number of seats available, even on peak period flights, to allow spare seats for passengers on flexible tickets in peak periods on business routes. This is similar to the previous assessments undertaken of the sensitivity tests presented in the 2013 Need Statement and Consolidated Environmental Statement and Addendum.

4.10 The overall capacity requirements are summarised in an updated **Figure 4.12A** below.

Figure 4.12A: Updated Scheduled Movement Demand and Airfield Capacity Required



Source: York Aviation

5 ECONOMIC RATIONALE

5.1 This economic case for CADP has been updated to reflect the updated demand forecasts and sensitivity tests. The methodology for assessing the operational impact of CADP remains as in the original 2013 Need Statement and CES. In addition, a further assessment has been made of the wider economic benefits from the development of CADP using metrics similar to those developed by the Airports Commission[24] since the 2013 Need Statement and ES were prepared.

Economic Context

5.2 The economic context for the area within which London City sits has been updated and shows continued underperformance such that the area remains in need of regeneration and economic stimulus. The average unemployment claimant count for the Study Area as a whole in December 2014 was 2.4%, higher than for London as a whole (2.1%) and than the UK average (2.0%). Newham's claimant count rate was 2.6%, Tower Hamlets' 2.7%, and Greenwich had a rate of 2.4%. Hackney's rate was the highest in the Study Area at 3.1%. Although claimant count rates have reduced since 2012, those in the Study Area remain above those for the rest of London and the UK as a whole.

5.3 There were approximately 104,000 jobs in the Borough of Newham in 2013 (most recent data from ONS), but a job density (ratio of jobs to population) of only 0.47, as opposed to 0.93 in London as a whole. Newham's Local Economic Assessment 2010 to 2027 (which has not been updated since October 2010) notes that Newham fails to achieve its potential in terms of productivity, employment and business turnover, given its size and proximity to central London. Claimant counts also remain high compared to the UK as a whole, with those in the Royal Docks ward being particularly high. This provides the context in which to consider the immediate local employment and economic benefits from the CADP which comprise principally the Operational Impacts.

Operational Impacts

5.4 These have been updated based on an updated assessment of on-site employment at the Airport in 2014. The 'Core Study Area' remains as originally assessed. The impacts assessed here relate to CADP1. CADP2 (the Hotel) is dealt with at paragraph 5.10.

[24] Airports Commission, Final Report, Chapters 6 and 7.

Baseline Employment

5.5 The updated employment (rounded to the nearest 10) and GVA estimates at London City Airport for 2014 are summarised in the **Table 5.2A**. Terminal passenger throughput in 2014 was 3.65 million[25], which implies a baseline employment density in 2014 of 500 direct onsite jobs per million passengers. It is clear, however, that there has been a slight fall in current employee numbers since 2012, which implies a very high level of productivity growth between 2012 and 2014 largely as a result of the recession. A number of reasons may account for this, ranging from one-off productivity drives by certain employers to full re-structuring of functions by others. Some employers have noted that they are now somewhat under-staffed and would need to take on more staff within the next few months (over and above the numbers stated above), which will have the effect of lowering the rate of productivity growth over the coming years, following this period of exceptional high productivity.

5.6 For 2014, it is estimated that 64% of employees were resident in the local 'Study Area' as defined in the existing Section 106 Agreement and 29% were resident in Newham itself.

Table 5.2A: Updated Baseline Employment

	Direct	Indirect & Induced	Total
Jobs (FTEs)	1,830	550	2,370
GVA (£million)	£85.4	£25.6	£111.0
Source: York Aviation			

Economic Impact of the Development

5.7 **Table 5.3A** sets out the estimated employment impact in 2020, 2023 and 2025 With and Without CADP1 in the core case. The projections are rounded to the nearest 10.

[25] London City Airport's own figure for 2014.

Table 5.3A: Updated Employment Impact With and Without CADP Core Cases			
Without Development (FTEs)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	1,830	550	2,370
2020	2,090	630	2,710
2023	2,120	640	2,750
2025	2,140	640	2,780
With Development (FTEs)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	1,830	550	2,370
2020	2,480	740	3,230
2023	2,890	870	3,760
2025	2,930	880	3,810
Net Employment Impact (FTEs)			
	Direct	**Indirect & Induced**	**Total**
2020	390	120	510
2023	770	230	1,010
2025	790	240	1,030
Source: York Aviation (figures may not sum due to rounding)			

5.8 On the updated assessment in core case, CADP will support an additional 1,100 direct onsite FTE jobs at 2025 compared with the baseline level of direct onsite FTE jobs and 1,440 total FTE jobs. CADP will support an additional 790 direct onsite FTE jobs at 2025 when compared with no development, and an additional 1,030 FTE jobs overall at 2025. These estimates are slightly greater than previously assessed at 2023 where, compared to 2012, an increase of 960 direct on site FTE jobs by 2023 or 1,250 total FTE jobs was projected, or an increase of 700 direct onsite FTE jobs and 910 total FTE jobs over the case with no development. The difference arises because of the short term step changes in productivity which have resulted in a lower number of jobs in the baseline as onsite companies have cut employment following the recession. However, this short term step change in productivity is not expected to be maintained as explained more fully in the UES Chapter 7. As in the 2013 Need Statement, this increase in employment will make a significant contribution to regeneration in Newham and the surrounding areas and contribute to the achievement of policies to promote increased employment.

5.9 **Table 5.4A** sets out the updated impact of the development of Gross Value Added (GVA) in the local area. CADP will support an additional £108.4.0m of GVA in the Study Area at 2025 compared with the baseline impact. The additional GVA impact at 2025 with the proposed CADP, compared with no development, is £47.8m. This compares to £98.8 million and £51.0 million as set out in the 2013 Need Statement. This arises partly due to increases in employment and due to the higher assumed GVA per FTE based on 2014 data.

Table 5.4A: Updated Operational GVA Impact With and Without CADP Core Cases			
Without Development (GVA £millions)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	£85.4	£25.6	£111.0
2020	£129.2	£33.0	£162.2
2023	£132.4	£35.5	£167.9
2025	£134.4	£37.3	£171.6
With Development (GVA £millions)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	£85.4	£25.6	£111.0
2020	£142.5	£39.2	£181.7
2023	£164.9	£48.5	£213.3
2025	£168.3	£51.1	£219.4
Net Employment Impact (GVA £millions)			
	Direct	**Indirect & Induced**	**Total**
2020	£13.3	£6.2	£19.5
2023	£32.5	£13.0	£45.4
2025	£33.9	£13.8	£47.8
Source: York Aviation			

5.10 When the employment impact of the proposed Hotel (CADP2) is taken into account, the total additional employment created by CADP in the local area by 2025 compared to 2014 is approximately 1,640 FTE jobs (1,440 due to CADP1 as shown in Table 5.3A and approximately 200 Hotel related jobs). This is marginally higher than the increase between 2012 and 2023 shown in the 2013 Need Statement of 1,500 additional FTE jobs. This figure excludes construction related employment which is estimated to be approximately 461 FTE jobs for the duration of the construction programme, based on the construction costs, Annual Business Survey data on construction output and taking into account indirect and induced effects. This is marginally higher than the previous estimate of 448 construction related FTE jobs due to changes in the value of construction achieved per FTE employee.

Sensitivity Tests

5.11 There are relatively small differences in the assessed economic benefits with the two forecast sensitivity tests (with development). The **With CADP Faster Move to Jets Sensitivity Test** has no effect on the employment projections set out above when rounding is taken into account, and no material impact on the GVA projections. The **With CADP Higher Passenger Sensitivity Test**, however, has the effect of increasing the employment projections as shown in **Tables 5.5** and **5.6** such that an additional 930 direct onsite FTE jobs and £47.4m of GVA would be supported at 2025 when compared with no development (150 more FTEs and £13.5m more GVA than in the Core Case), and an additional 1,210 FTE jobs and £63.7m of GVA overall at 2025 (180 more FTEs and £15.9m more GVA than in the Core Case). This would represent an increase in employment over today of 1,620 FTE jobs in the local area.

Table 5.5: Employment Impact With CADP High Passenger Sensitivity Test and Without CADP Core Case			
Without Development (FTEs)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	1,830	550	2,370
2020	2,090	630	2,710
2023	2,120	640	2,750
2025	2,140	640	2,780
With Development (FTEs)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	1,830	550	2,370
2020	2,480	740	3,230
2023	3,000	900	3,900
2025	3,070	920	3,990
Net Employment Impact (FTEs)			
	Direct	**Indirect & Induced**	**Total**
2020	390	120	510
2023	880	270	1,150
2025	930	280	1,210
Source: York Aviation			

Table 5.6: Operational GVA Impact With CADP High Passenger Sensitivity Test and Without CADP Core Case			
Without Development (GVA £millions)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	£85.4	£25.6	£111.0
2020	£129.2	£33.0	£162.2
2023	£132.4	£35.6	£167.9
2025	£134.4	£37.3	£171.6
With Development (GVA £millions)			
	Direct	**Indirect & Induced**	**Total**
Baseline (2014)	£85.4	£25.6	£111.0
2020	£142.5	£39.2	£181.7
2023	£175.0	£50.3	£225.3
2025	£181.8	£53.6	£235.3
Net Employment Impact (GVA £millions)			
	Direct	**Indirect & Induced**	**Total**
2020	£13.3	£6.2	£19.5
2023	£42.6	£14.8	£57.4
2025	£47.4	£16.3	£63.7
Source: York Aviation			

5.12 In the event that additional Jet Centre movements were attracted by 2025 in the **Without CADP Higher Jet Centre Sensitivity Test**, it is possible that an additional 4 FTE jobs would be created in the Jet Centre to handle the additional flights. Any such jobs would then need to be netted off the benefits of the development of CADP set out above to determine the net gain but the difference is, in practice, negligible.

5.13 The operational impacts across the scenarios are summarised in **Table 5.7**.

Table 5.7: Summary of Operational Impacts by Scenario at 2025				
	Current 2014	**Without CADP Core Case and Higher Jet Centre Sensitivity Test**	**With CADP Core Case and Faster Move to Jets Sensitivity Test**	**With CADP Higher Passenger Sensitivity Test**
Employment FTEs				
Direct	1,830	2,140	2,930	3,070
Total	2,370	2,780	3,810	3,990
GVA £ million				
Direct	£85.4	£134.4	£168.3	£181.8
Total	£111.0	£171.6	£219.4	£235.3
Source: York Aviation				

Wider Benefits from CADP

5.14 Further work has been done to quantify the wider economic importance of London City Airport in the context of overarching policies seeking to rebalance the growth of London's economy towards the East. The requirement for improved air connectivity to support this wider economic growth is a key part of the need case for CADP and the quantitative elements of this analysis have been made possible by the development of new techniques for measuring this impact developed in connection with the work of the Airports Commission[26]. This new analysis draws on earlier work by York Aviation and presents new metrics measuring the wider economic role played by the connectivity which the Airport will provide with CADP using metrics based on those used by the Airports Commission.

5.15 The wider economic benefits are additional to the direct, indirect and induced operational impacts on employment and GVA described above. These impacts represent the economic footprint created by the operation of the Airport. The wider economic benefits represent those generated by the Airport by way of the benefits that accrue to users through the global connectivity it provides and the way in which this connectivity acts as a magnet for a wide range of economic and social activities. This effect is noted as being of particularly importance in the Government's Aviation Policy Framework, referred to earlier.

5.16 The mechanisms through which this wider impact can operate are many fold but the key channels include the following:

- as an important element in company location decisions, the presence of an international airport can be an important factor in:

[26] Airports Commission, Final Report, June 2015, Chapters 6 and 7.

   - attracting new investment from outside the area, and especially companies from overseas;
   - retaining existing companies in the area, whether they had previously been inward investors or indigenous operations;
   - securing the expansion of existing companies in the face of competition with other areas;
- ✈ promoting the export success of companies located in the area by the provision of passenger and freight links to key markets (although it is acknowledged that the market for the carriage of airfreight at the Airport is small);
- ✈ enhancing the competitiveness of the economy, and the companies in it, through its fast and efficient passenger and freight services;
- ✈ encouraging the growing number of mobile workers to locate their homes and businesses within an area by providing connectivity to key destinations; and
- ✈ attracting inbound tourism, including both business and leisure visitors, to the area.

5.17 These wider economic impacts are initially described qualitatively below, providing context and some examples of London City Airport's role.

Qualitative Assessment

5.18 In the first instance, the impact of the Airport on the wider economy is in large part a function of the nature of the passengers which use the air connectivity which it provides. As well as the high proportion of business and inbound passengers, as identified in Section 3, a key indicator is the high proportion of passengers using the Airport from the higher socio-economic groups. The updated analysis for 2014 is shown in **Table 5.1A** shows the distribution of business passengers by socio-economic groups using London airports in 2014. When coupled with the high proportion of business and inbound visitors, this indicates the role which the Airport serves for high value business travellers and inbound visitors to the UK.

Table 5.1A: Business Passenger by Socio-Economic Group				
Airport	**A/B**	**C1**	**C2**	**D/E**
London City	39.9%	47.0%	11.1%	2.0%
Heathrow	39.9%	45.4%	9.7%	4.9%
Gatwick	37.0%	39.6%	15.1%	8.4%
Stansted	34.0%	41.6%	13.8%	10.5%
Luton	37.0%	35.0%	17.2%	10.8%
Source: CAA Survey (2014)				

5.19 Significantly, London is now clearly 'moving east'. The area around the former Royal Docks and Greenwich Peninsula is now attracting significant investment in new enterprise, housing and transport links. Much of this development is dependent on attracting global brands and investment and London City Airport offers the international connectivity that makes accessing East London so convenient and facilitates its continued growth. Some of the major engines of growth are outlined below:

ABP

5.20 The proposed ABP development at Royal Albert Dock is intended to become London's third business and financial district, after the City of London and Canary Wharf, and a hub for businesses from Asia looking to reach new markets in Europe and for European companies seeking to do business with them and expand into the Far East. The connectivity provided by London City Airport will be critical to this development and is cited in its marketing material. Planning permission has been given by LB Newham subject to approval by the Greater London Authority and ABP is expected to be able to begin work on the 35 acre site later this year.

Canary Wharf

5.21 London is the world's leading financial centre, having grown rapidly in recent years. It attracts increasing numbers of overseas investors and UK banks who are growing and extending their international operations. Canary Wharf has emerged as an iconic symbol of growth of the financial business in London. Canary Wharf offers a location that has sufficient space to maximise productivity benefits from bringing different parts of a business together (internal agglomeration effects), but is also close enough to the City to maximise the benefits that can be obtained from being part of the wider London financial services cluster ('external agglomeration' effects). London City Airport is part of what makes Canary Wharf work as a location for the highly competitive, high value added international financial services cluster. It makes true world-wide day to day operations possible.

ExCeL

5.22 It is difficult to estimate in numeric terms the role that London City Airport played in initially bringing ExCeL to East London, as the Airport was just one of a number of factors, or indeed the numeric value of the Airport's role in ExCeL's success and expansion. However, it is clear that is major synergy between London's premier exhibition venue and the international connectivity that the Airport provides.

Royal Wharf

5.23 Royal Wharf, located between the Thames Barrier Park and Lyle Park, covers 38 acres and will be the biggest new Docklands neighbourhood since Canary Wharf. Around 3,400 new homes will be constructed and the developer reports that demand is "extremely strong". The proximity of London City Airport is seen as an attraction for the market.

Siemens Crystal

5.24 Siemens opened the Crystal on Royal Victoria Dock in September 2012 as a global hub for debate on sustainable living and development. Since opening, over 100,000 people each year have visited the interactive exhibition in what is billed as one of the world's most sustainable buildings.

Silvertown Quays

5.25 This £3.5 billion mixed-use development, overseen by the Silvertown Partnership, has been described as "a new piece of London" and will feature global brand experiences. The connectivity provided by London City Airport, as well as the Crossrail link, is seen by the developer as fundamental to attracting these global brands, many of whom have offices in Europe. The project will also create up to 2,000 new homes and 21,000 new jobs in East London and is expected to attract up to 13 million visitors per annum.

UEL

5.26 The international connectivity offered by London City Airport, just across the Dock, is a major bonus for international students. Today, UEL educates more Newham residents than any other Higher Education Institute. It is the largest 'export-facing business' operating in Newham that is also headquartered in the Borough, with around 2,000 EU students and 3,000 other international students delivering a significant flow of cash into the area.

5.27 These developments indicate the synergy with the growth of activity at London City Airport. It is important that the growth of this connectivity can keep pace with the growth of economic activity in the area more generally.

Quantifying the Wider Benefits

5.28 Developing robust quantitative estimates of the wider economic impacts associated with airports is challenging. The reason for this is that wider economic benefits include areas where outcomes are dependent on a range of factors and it is difficult to isolate those that might be specifically attributable to the proximity of an airport, rather than to other factors.

5.29 Given the challenges around making estimates of the wider impact of the Airport, as in the work of the Airport's Commission, a number of complementary pieces of evidence have been considered here based on previous research about London City Airport, recent research on wider economic impacts and drawing on the metrics developed and used by the Airports Commission. These metrics apply to the impact on the whole of the Airport's catchment area, which is wider than the local Study Area considered in relation to the operational impacts considered above.

5.30 As with the work of the Airports Commission, this evidence base can be divided in to three distinct but partially overlapping elements:

- Strategic Economic Indicators;
- Wider Gross Value Added (GVA) Impacts;
- Transport Economic Efficiency (TEE) Effects.

5.31 Each of the three elements of the analysis of wider economic impacts is different and considers the potential benefits from CADP from a different perspective. Considering the issue from different perspectives gives confidence that the benefits identified via any particular approach are not spurious.

5.32 However, it should also be recognised that there are linkages between the approaches and, hence, they cannot be combined. To some degree, they measure the same things in different ways. The Strategic Economic Indicators are largely measures of the gross impact which the Airport has on the wider economy and are based on the indicators of the wider impact of the Airport in 2012 in the Need Statement.

5.33 The other two approaches consider the net effect which the Airport produces for both its users and the wider economy. The Transport Economic Efficiency approach provides the widest perspective of the impact on society through its focus on users. Theoretically, it should include within it a significant proportion of the Wider GVA effects but not all. This is partly because techniques do not exist to examine the full range of effects and also because there are elements of increased GVA that will not be reflected in increased economic welfare. Equally, the Wider GVA approach will not include potentially important benefits to users, most obviously those accruing to leisure travellers. It is not possible to be precise about the exact areas of overlap. Hence, considering the broad range of evidence as set out here is a sensible approach.

5.34 It should be noted that it is only the Wider Gross Value Added Impacts that can strictly be summed with the direct, indirect and induced operational impacts, described earlier in this section, on a like for like basis. These impacts are expressed in the same unit of account as the direct, indirect and induced impacts, i.e. GVA, where the others offer assessments which are either expenditure measures or government revenue measures or effects on broader economic welfare.

Strategic Economic Indicators

5.35 In February 2011, the Airport published a report by York Aviation[27] which set out to assess the value of the economic activity that would not have been attracted to London in the absence of the Airport and on the wider economic activity that the Airport facilitates. This high level strategic study set out to assess:

- ✈ the role of the Airport in the economic development of Docklands, the extent to which the Airport has been a critical factor in inward investment decisions, and the importance of the Airport in anchoring major financial and professional services firms within the area;
- ✈ the extent to which the Airport drives business productivity through journey time and other savings, which support the financial services clusters in Canary Wharf and the City;
- ✈ how the Airport supports the wider economy by facilitating additional transport investment which has led in turn to increased property values; and
- ✈ how the Airport and the transport connectivity it supports has led to increased inward investment and additional overseas tourism spend (business and leisure) in the local area.

[27] Study into the Impact of London City Airport on the Economy of Docklands and London, York Aviation, February 2011.

5.36 The key findings of this report have been updated to 2014.

5.37 Supporting Inward Investment - The Airport is highly valued by its business users and companies across East London and in to the City and is an important part of making London an ideal base for European and global operations. Based on analysis of 2014 CAA Passenger Survey Data, an estimated business fares value of £280 million passed through the Airport in 2014. In addition, passengers departing from the Airport paid in excess of £41 million in Air Passenger Duty in 2014 to the Exchequer.

5.38 Driving Business Productivity - In 2014, based on analysis of CAA Survey Data, around 1.6 million business passengers saved an estimated £53 million in surface access time by using London City Airport rather than other London airports, mainly Heathrow. Furthermore, these passengers saved £55 million of time through the streamlined passenger processing and shorter check-in times at the Airport. This equates to an estimated total time saving benefit of around £109 million in a single year. The average income of business passengers at the Airport in 2014 was around £101,000, 32% higher than the next London airport, Heathrow.

5.39 In addition, it is estimated that leisure passengers at the Airport benefit from journey time and processing times savings of around £8 million per annum.

5.40 Gateway for Inbound Tourism - The Airport has not only been an important catalyst in making East London a viable and attractive place to do business and to visit, it has been and continues to be an important gateway for overseas visitors. Based on 2014 CAA Survey Data, around 45% of the Airport's passengers were inbound overseas visitors. These visitors and those from other parts of the UK injected a significant amount of expenditure into the London economy as follows:

- the around 460,000 overseas business visitors (920,000 passengers) contributed around £292 million in additional consumer expenditure;
- the around 110,000 domestic business visitors (220,000 passengers) contributed around £15 million in additional consumer expenditure;
- the around 340,000 overseas leisure visitors (680,000 passengers) contributed around £164 million in additional consumer expenditure;
- the around 55,000 domestic leisure visitors (110,000 passengers) contributed around £13 million in additional consumer expenditure.

5.41 In **Table 5.8**, some of these key metrics have now been extrapolated to 2025 for the CADP with and without development core scenarios.

Table 5.8 Wider Economic Benefit Metrics (£m at 2015 prices)				
	2014 Base	**Without Development 2025**	**With CADP Core Case 2025**	**Additional CADP vs. Without**
Business Journey Time Savings	£109	£159	£184	£25
Business Tourism Expenditure	£307	£387	£471	£84
Leisure Tourism Expenditure	£177	£217	£281	£65
Air Passenger Duty	£41	£53	£57	£4
Source: York Aviation				

5.42 In overall terms, the contribution of the Airport, as defined by these indicators alone increases from £634 million in 2014 to £993 million in 2025 in gross terms with CADP.

5.43 This analysis demonstrates that:

- business travellers would save an additional £25 million per annum in time by 2025 with CADP, contributing to business productivity;
- inbound business visitors would spend around £84 million per annum in 2025 more in the economy with CADP;
- inbound leisure visitors would spend around £65 million per annum in 2025 more in the economy with CADP;
- the additional passengers enabled by CADP would result in travellers through the Airport paying around £4 million more in APD.

5.44 These metrics are helpful in understanding the scale of the Airport's influence and the channels through which it delivers benefits. They are not, however, strictly comparable measures of the impact on the economy in terms of GVA in the same terms as the direct, indirect and induced operational impacts described above. With that caveat, they do provide a measure of the scale of contribution made by the Airport in gross terms.

Wider Gross Value Added Impacts

5.45 As described above, the strategic economic indicators provide a helpful view of the nature of the benefits that London City offers and the scale of those benefits but this approach does not provide a strictly comparable GVA figure that can be combined with the direct, indirect and induced impacts of the Airport and the CADP described above to provide an holistic view of the Airport's impact on economic activity, not least as some of the measures such as visitor expenditure do not necessarily translate directly to a GVA effect and do not take into account the extent of any economic displacement from other airports.

5.46 In this regard, further work has been undertaken based on new research by Oxford Economics in 2013[28] into the link between aviation connectivity and productivity. This provides a basis for estimating the GVA associated with business travel via London City Airport, both currently and in the future. The relationship defined by Oxford Economics says that the level of Total Factor Productivity (TFP) in the economy has a positive elasticity relationship with the number of business travellers and amount of air freight from an area relative to that area's GVA. This relationship says that a 10% increase in the number of business travellers or the amount of air freight will result in a 0.5% increase in the area's GVA via improvements in TFP.

5.47 The complication in relation to London City Airport is that it is not the only airport serving its catchment area and, hence, it is not safe to assume that all the business passengers using the Airport would not travel if it were not there. Hence, before applying the Oxford Economics relationship, it is necessary to estimate the number of business passengers that use the Airport that would simply switch to another of the London airports if London City were not to exist or, in relation to CADP, if the Airport were to become constrained. This process involves examining the generalised cost of travel for passengers of travelling via London City or via the next best alternative, usually Heathrow.

5.48 The generalised cost is made up of a number of monetised factors[29]: the surface journey time to the airport, the flight time to the end destination, airport processing and delay times and the air fare. If the relative cost of travelling via the alternate is higher, then a proportion of passengers will choose to no longer travel. The proportion that choose not to travel is determined using the air fare elasticities for the relevant passenger segment taken from the Department for Transport Aviation Forecasts 2013. This approach has been used to consider the passengers that might have been lost in 2014 and with and without CADP at 2025.

[28] Impacts on the UK Economy through the Provision of International Connectivity – Oxford Economics for Transport for London (2013)
[29] Time based costs have been monetised using the Department for Transport Values of Time for London City Airport passengers set out in the Airports Commission Final Report Supporting Document Economy: Transport Economic Efficiency Impacts.

5.49 The result of this process is an estimate of the GVA supported in the wider economy through business travel via London City Airport in 2014 and in the core with and without CADP scenarios in 2025.

5.50 In 2014, the GVA supported in the wider economy by London City Airport through its facilitation of business travel is estimated to be around £142 million. The impact of CADP on GVA in the wider economy has also been considered using the Oxford Economics relationship and associated analysis described above. This analysis suggests that the boost to productivity enabled by the net additional connectivity enabled by CADP will result in the Airport supporting around £248 million in GVA via business related wider economic impacts in 2025 (at 2015 prices). This compares to the Without CADP scenario, which will only see the Airport support around £199 million in GVA via business related wider economic impacts in 2025 (at 2015 prices). Hence, CADP will support a net additional £49 million in GVA via business related wider economic benefits in 2025. This is likely to understate the net GVA benefits to some degree to the extent that benefits to leisure users may also contribute.

5.51 The benefits would be even greater if the higher passenger throughput under the **High Passenger Sensitivity Test** was achieved. In this case, the Airport's net impact on GVA in the wider economy from business related connectivity in 2025 is estimated to be around £267 million. This is £68 million more than the Without Development Core Case.

Transport Economic Efficiency Effects

5.52 The Airports Commission process has reinforced the importance of the third element of the analysis. The Airports Commission has considered a wide range of evidence on the economic effects of airport capacity development. Although the Airports Commission developed an assessment of the overall impact of airport expansion on GVA, similar to that outlined above, its primary method for economic assessment was a cost benefit analysis examining the transport economic efficiency effects of airport expansion. This approach considers the effect of a capacity change on the costs and benefits faced by key actors in society, namely passengers, airlines and airports, and the public finances.

5.53 The analysis presented here has examined the effect of CADP using a similar range of metrics, as follows:

- ✈ User Benefits – improvements in the generalised costs facing passengers by being able to use London City rather than alternatives. These are made of monetised surface access time savings, airport processing time savings and delay savings. The impacts on both business and leisure passengers are considered;

- Government Revenue – this reflects additional APD collected by the UK Government from passengers that will only travel if London City is able to expand;

- Wider Economic Benefits – one of the key assumptions in this type of analysis is that the market is perfectly competitive. In such circumstances all costs and benefits will be reflected in the price paid by passengers and, consequently, benefits to users, producers and the government will provide a complete assessment. However, as markets are not perfectly competitive some additional benefits are possible. The Airports Commission has identified a number of areas where net benefits to society can be achieved: gains from additional international trade, agglomeration effects, increased tax take from higher wages and increased output from reduced transport costs due to imperfect competition. The methodologies used by the Airports Commission and set out within their final report have been used to assess these issues.

5.54 As with the Airports Commission's work, we have excluded tourism effects from this analysis due to the problems inherent in determining the relative balance of inbound and outbound expenditure given the patterns of expenditure on outbound travel.

5.55 While these techniques again do not provide an assessment of the impact on GVA (economic activity), they do provide a robust basis for considering the relative merits of different future development scenarios from a broader economic welfare perspective. **Table 5.9** presents the annual additional benefits supported by the With CADP Core Case compared to the Without Development Core Case in 2025 using this Transport Economic Efficiency approach.

Table 5.9: Economic Welfare Benefits of CADP vs. Without Development at 2025 (£m at 2015 prices)

User Benefits	£27.7
Government Revenue	£0.5
Wider Economic Benefits	£84.0
of which	
Increased Trade	£32.4
Agglomeration	£29.0
Additional Tax	£20.2
Imperfect Competition	£2.5
Total	**£112.2**
Source: York Aviation	

5.56 This analysis suggests the With CADP Core Case offers net annual benefits to the economy of around £112 million in 2025 compared to the Without CADP Core case. These benefits are made up primarily of benefits to users from improved journey times and reduced delay effects (£27.7 million) and Wider Economic Benefits of around £84 million. These wider economic benefits are made up of a number of impacts, including the potential impact on trade, agglomeration effects, additional government revenue from higher incomes and gains due to imperfect competition. Care should be taken when comparing these impacts to the wider GVA impacts as they are not measuring exactly the same thing. However, it is encouraging that both analyses suggest a similar order of magnitude of effect, given that the GVA based assessment is purely the benefit from increased business travel.

5.57 The economic welfare assessment under the **With CADP High Passenger Sensitivity Test** suggests net economic benefits over and above the Without Development Case of around £167 million, made of user benefits of around £44 million, Government Revenue of £1 million and Wider Economic Benefits of £123 million.

Summary of Benefits

5.58 Overall, it is clear that the With CADP Core Case offers substantial economic benefits over the Without CADP Core Case and that, as a consequence, the catchment area for the Airport will benefit significantly from the scheme. In the **With CADP Core Case** at 2025, there would be an increase in FTE employment of 1,440 over 2014 due to the operation of the Airport, plus 200 FTE jobs associated with the Hotel, making a total of approximately 1,640 FTE additional jobs created by 2025. In addition, further employment amounting to 461 FTE jobs is created during the construction period. This amounts to an increase in operational employment of 1,030 FTE jobs over the **Without CADP Core Case** or 1,230 FTE jobs once the impact of the Hotel is accounted for. An additional 180 FTE jobs would be created at 2025 in the **With CADP Higher Passenger Sensitivity Test** case. In both cases, this excludes the employment created during the construction period and which is additional.

5.59 In terms of the Strategic Economic Indicators, the economic contribution of the Airport to the wider economy was £634 million in 2014 and, with CADP, this gross economic contribution is expected to grow to £993 million a year by 2025 in the **With CADP Core Case** in 2015 and proportionately higher in the **With CADP High Passenger Sensitivity Test**. This is a measure of the gross economic contribution of the Airport to the wider economy, excluding the operational impacts.

5.60 In terms of economic welfare (the TEE measures), CADP will deliver net economic welfare benefits of £112.2 million in 2025 in the **With CADP Core Case** and proportionately greater in the **With CADP High Passenger Sensitivity Test**. These are recurring benefits.

5.61 In net GVA terms alone, accepting the caveats above, the combined impact of CADP in operational and wider impact terms would amount to a boost to GVA in 2025 of the order of £96.8 million[30] in the **With CADP Core Case**, made up of £47.4 million of operational impact and £49 million of wider GVA impact, and of the order of £131.7 million in the **With CADP High Passenger Sensitivity Test** case, made up of £63.7 million of operational impact and £68 million of wider GVA impact. These are net annual benefits compared to the circumstance of CADP not being constructed and which would recur annually over the life of the project.

[30] To the extent that some operational benefits are realised outside of the local Study Area, this may marginally understate the impact.