MAYOR OF LONDON

Transport for London

Inner Thames Estuary Feasibility Study

Response to Airports Commission Call for Evidence

The Mayor of London's Submission:
Supporting technical documents

23 May 2014

Title: **Airport Surface Access Demand and Impacts**

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Purpose of paper:

This technical note details evidence on TfL's appraisal of the impact airport expansion or relocation on London's transport network.

Key messages:

- The scale of additional highway and rail demand generated by airport expansion will be significant
- The impact the additional airport demand will have on London's future road and rail network that is forecast to be congested should not be underestimated
- The cost of accommodating the additional demand on the transport network without impacting future non-airport users will be significant
- The cost of achieving a sustainable mode share and improved level of service for airport users will also be significant

Mayor's Aviation Work Programme

Technical Note – Surface access demands and impacts

Transport for London

May 2014

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- The scale of additional highway and rail demand generated by airport expansion will be significant
- The impact the additional airport demand will have on London and the South East's already congested road and crowded rail network needs to be fully understood and mitigated.
- The full cost of accommodating the additional demand on the transport network without impacting future non-airport users will be significant
- The full cost of achieving a sustainable mode share and improved level of service for airport users will be significant

1. Introduction

The purpose of this technical note is to provide an indication of key issues for Airport Commission consideration as they develop their thinking on the surface access impacts and implications of both an Inner Thames Estuary (ITE) option, and the shortlisted options.
This document identifies:

- the potential scale and distribution of future year rail and road network demand as a result of:
  - a new hub airport in the Inner Thames Estuary; and
  - single new runways at both Heathrow and Gatwick.

- Key issues for the Airports Commission to consider as they examine the potential of an Inner Thames Estuary solution and the shortlisted schemes to deliver their surface access objectives:
  - To maximise the number of passenger and workforce accessing the airport via sustainable modes of transport ;
  - To accommodate the needs of other users of transport networks, such as commuters, inter-city travellers and freight; and
  - To enable access to the airport from a wide catchment area.

2. The potential scale and distribution of future year demand

In undertaking the work set out within this technical note we have made best use of existing evidence and data sources on current demands and impacts at airports in London and the South East. These existing datasets, which have been used to underpin assumptions, are outlined in Table 1.

Table 1 Key Baseline Assumptions

Data	Gatwick Airport		Heathrow Airport	
	Source		Source	
Current Annual Passenger Demand	CAA Airport Statistics	35.43mppa	Heathrow Airport Traffic Statistics	72.33mppa
Peak Month Passenger Demand	London Gatwick traffic results for August 2013	4.032mppa	Heathrow Airport Traffic Statistics	6.96mppa
Ratio of peak day to peak month	BAA Annual Patterns of Traffic 2010	0.038	BAA Annual Patterns of Traffic 2010	0.034
Proportion of Connections	Connecting UK Airports	13.1%	2012 CAA Pax Survey Report	36.7%
Percentage of additional visitors	2012 CAA Pax Survey Report	2.9%	2012 CAA Pax Survey Report	9.7%
Daily Profile	Calculated using flight profiles	-	Calculated using flight profiles	-
Passenger Mode Share	CAA 2011 data	39.9% PT	CAA 2011 data	40.6% PT
Passenger Home Locations	CAA 2011 data	-	CAA 2011 data	-
Total Staff Numbers	Access Gatwick Surface Access Strategy 2012 - 2030	21,109	Heathrow Airport Staff Survey	76,640
Staff Mode Share		70% Car		66% Car
Staff Home Locations		-		-

2.1. Inner Thames Estuary

Key assumptions:

- In line with AC's own analysis our surface access analysis is based upon an airport with throughput of 150 mppa rather than 180 mppa (as assumed in July 2013);
- Our calculations of trips generated by the airport during peak times assumes a flight profile associated with 150 mppa operation[1];
- In line with our previous analysis, we have examined 65% passenger mode share for public transport;
- We have retained our assumption of 75% staff mode share for public transport during the peak period. [2]
- Distribution of trips across the transport network remains as reported in our July 2013 submission.

Table 2 Potential scale of airport-related demand, passengers and staff

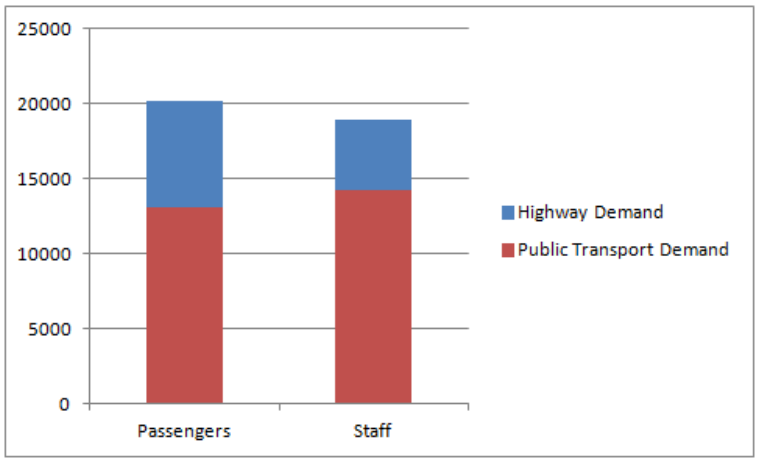
Core assumptions – Isle of Grain at 150mppa	AM Peak Hour
Number of annual air passengers	150 mppa
Number of staff	130,000
Total peak hour air passenger surface access trips (two way)	20,200
Total peak hour staff surface access trips (two way) [0730-0830] – coincides with background demand peak periods]	19,000[3]

[1]AM Peak Period trip generation determined from 150 mppa Annual passenger numbers, 'average to peak day' factors from the BAA Annual Patterns of Traffic 2010 and hourly flight profiles for a peak month. Calculated typical peak day passenger numbers and peak month profiles have been used to determine typical peak day landside arrivals and departures by hour. Peak Hour trips have been identified from the hourly profiles (assuming a worst-case). This scenario represents an 'average' Peak Hour within the AM Peak Period for a typical Peak Day.

[2] As reported in our July 2013 submission, public transport mode shares for staff across the day would be expected to be lower than during the peak, reflecting both disincentives to staff car use during the peak, and potentially lower levels of public transport provision at times outside the conventional working day when shift staff trips occur.

[3] Calculated assuming the same proportion of staff in attendance on any one day, and the same proportion of staff travelling during the peak hour as reported in the Heathrow Airport Staff Survey.

Figure 1 Potential airport-related two-way staff and passenger demand



2.2. Heathrow

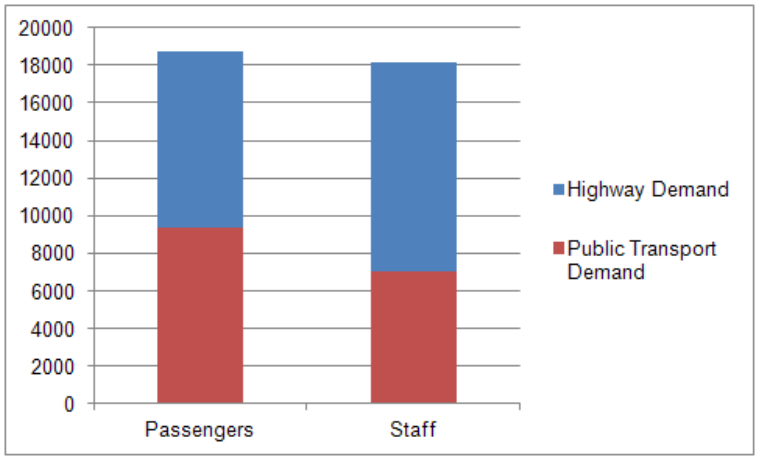
Key Assumptions:

- Surface access analysis is based upon a full capacity of 130 mppa;
- Staff numbers grow in line with growth in air passenger throughput;
- Our calculations of trips generated by the airport during peak times assumes a future flight profile for a typical day in a peak month[1];
- In line with AC's own analysis, we have examined 50% passenger public transport mode split;
- Similarly, we have examined 40% public transport mode split for staff; and
- Distribution of trips across the transport network remains as current.

Table 3 Potential scale of airport-related demand, passengers and staff

Core assumptions – Heathrow at 130mppa	AM Peak Hour
Number of air passengers	130 mppa
Number of staff	137,750
Total peak hour air passenger surface access trips (two way)	18,750
Total peak hour staff surface access trips (two way) [0730-0830] – coincides with background demand peak periods]	20,100

Figure 2 Potential airport-related total peak hour two-way staff and passenger demand (AM peak hour)



Key Observations:

- **A 130mppa three runway Heathrow is estimated to generate 16,650 new trips (relative to the current situation) to and from the airport in the AM peak hour, on already congested and crowded networks.**
- Without airport expansion, the M25 is predicted to operate over practical capacity (85%) in 2030 on the majority of links in the vicinity of the airport in the AM Peak, including between Junction 10 and 16, even with committed / planned improvements[4];
- between Junction 15 and 16 (anticlockwise) volume/capacity is forecast to increase to over 110%;
- The M4 is predicted to operate above practical capacity (85%) on the westbound carriageway in the 2030 AM Peak, including between Junction 4, 4b and 5;
- Increase in westbound vehicles on the M4 between Junction 4 and 4b is forecast to increase volume/capacity on this section to over 100%; and
- Even with planned upgrades, the Piccadilly Line is predicted to be operating at capacity (90%) east of Hammersmith Station in the AM peak hour, 2030. Likewise Crossrail is predicted to reach capacity east of Ealing by 2030[5]

2.3. Gatwick

Key Assumptions:

- Surface access analysis is based upon a full capacity of 84 mppa;
- Staff numbers grow in line with growth in air passenger throughput;
- Our calculations of trips generated by the airport during peak times assumes a future flight profile for a typical day in a peak month[1];
- In line with AC's own analysis, we have examined 50% passenger public transport mode split;
- Similarly, we have examined 40% public transport mode split for staff; and
- Distribution of trips across the transport network remains as current.

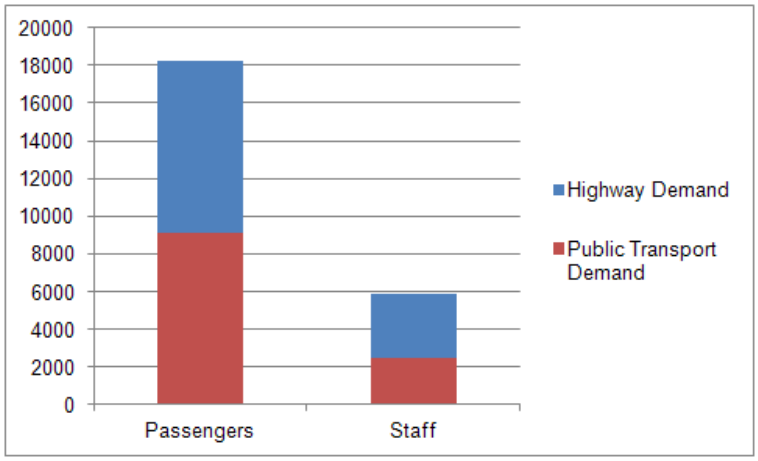
[4] Source: M25 Strategic Model

[5] Source: Railplan. Only services travelling towards Central London and stopping at Heathrow Airport have been included in the analysis.

Table 4 Potential scale of airport-related demand, passengers and staff

Core assumptions – Gatwick at 84mppa	AM Peak
Number of air passengers	84 mppa
Number of staff	50,050
Total peak hour air passenger surface access trips (two way)	18,250[5]
Total peak hour staff surface access trips (two way) [0730-0830] – coincides with background demand peak periods]	6,200[6]

Figure 3 Potential airport-related total peak hour two-way staff and passenger demand – LGW (AM peak hour)



Key Observations:

- **A 84mppa two runway Gatwick is estimated to generate 14,350 new trips (relative to the current situation) to and from the airport in the AM peak hour on already congested and crowded networks.**
- Without airport expansion, the M25 is predicted to operate over practical capacity (85%) in 2030 on the majority of links providing access to the airport in the AM Peak, including between Junction 6 and 10, even with committed / planned improvements[7];
- With expansion, volume/capacity is forecast of over 100% between Junction 7 and 8 (anticlockwise);
- The M23 is predicted to operate over practical capacity (85%) in both directions to the north of the junction 9 and northbound to the south of junction 9 in the 2030 AM Peak[7];
- Traffic increases on the M23 between the M25 and Gatwick airport would increase volume/capacity on this section to over 115%;
- Towards Central London, the rail lines are predicted to operate over practical capacity (90%) north of Redhill in the 2031 AM Peak, even with committed / planned improvements[7];
- Rail demand increases with expansion are forecast to result in increases in volume/capacity for Gatwick Airport services arriving at London Bridge Station to over 95%;
- Rail demand increases with expansion are forecast to result in increased volume/capacity on Gatwick Airport services approaching Clapham Junction to over 130%.
- London Underground Services, specifically the Victoria Line from Victoria station and the Jubilee and Northern Lines at London Bridge, are predicted to operate approaching capacity (over 85% volume/capacity) in 2031[8] without the airport expansion.

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[6] Calculated using nominal information from our July 2013 submission (total staff working on any one day) and information from the Heathrow Airport Staff Survey (total travelling in the Peak).

[7] Source: PLANETSouth. Only services travelling towards Central London and stopping at Gatwick Airport have been included in the analysis.

[8] Source: Railplan.

3. Delivery against the AC's objectives

The Commission identify three objectives:

- To maximise the number of passenger and workforce accessing the airport via sustainable modes of transport ;
- To accommodate the needs of other users of transport networks, such as commuters, inter-city travellers and freight; and
- To enable access to the airport from a wide catchment area

Below we set out our assessment of performance against these objectives of three alternatives:

- The Inner Thames Estuary surface access proposition as submitted to AC in July 2013;
- The Heathrow 3 runway 130mppa surface access proposition as interpreted from the AC's Interim Report supporting documentation; and
- The Gatwick 2 runway 84mppa surface access proposition as interpreted from the AC's Interim Report supporting documentation.

Table 5 Meeting Surface Access Objectives

Criteria	Inner Thames Estuary	Heathrow	Gatwick
Maximising mode choice for passengers and staff	• A blend of rail services to match air passenger origin/destinations and to meet varying requirements and expectations for speed, comfort, convenience and cost; • High speed links will provide direct link to key destinations across London, and to other part of the UK; • Crossrail will provides alternative rail provision, and extends direct connectivity to other parts of London, • Total rail provision ensures that wide catchment area has realistic and attractive alternative to car for access to the airport; • Coach, bus and taxi will contribute to sustainable access for air passengers; and • Sustainable staff travel choices to be promoted through new local rail links and a bespoke bus strategy from the airport directly to the current and future areas of growth where it is expected that staff will live.	• Increasing public transport mode share from 40 to 50 % for air passengers is challenging at an existing airport location with well established passenger choices and patterns of behaviour; • The level of improved public transport provision offers new public transport options (especially for rail trips), however further evidence is needed that this changes sufficiently the current patterns of choice; and • Improved rail links offer new connectivity for staff, however further evidence is required that this new provision matches staff travel to work needs to support the assumed shift in public transport share from 28% to 40%.	• Increasing public transport mode share from 40 to 50% for air passengers is challenging at an existing airport location with well established passenger choices and patterns of behaviour. • The level of improved provision offers new public transport options (especially for rail trips through the Thameslink upgrade), however further evidence is needed that this changes sufficiently the current patterns of choice; and • Improved rail links offer new connectivity for staff, however further evidence is required that this matches staff travel to work needs to support the assumed shift in public transport share from 35% to 40%.
Impacts on other transport users – road (by road user – commuter, business, freight)	• Airport generates new road based demand as outlined in section 2 above, but proposed road strategy is designed and costed to provide: ○ adequate road capacity for efficient access to the airport, including at peak times. Interventions on the wider network designed to mitigate	• Expansion generates increases of road based demand as outlined in section 2 above; • Strategic road network around Heathrow is forecast to be at or reaching capacity even without additional airport traffic; • Additional road traffic, unless adequately mitigated, will lead to delay	• Expansion generates increases of road based demand as outlined in section 2 above; • Airport expansion will impact upon junctions 8, 9 and 9A of the M23, and on the M23 between J8 and J10; • Expansion will generate significant increases of road based demand on already congested sections of the

Criteria	Inner Thames Estuary	Heathrow	Gatwick
	the impact of additional airport road traffic; ○ Comparable future journey times and reliability (for air passengers and for general traffic) as would be the case without the airport; and ○ No additional delay and congestion for non-airport road users.	and congestion not just for those accessing the airport, but also for other users of the strategic road network. • Links forecast to experience a worsening of already congested conditions include: ○ M25 J10 to 16; ○ M4 J4 to 5; and ○ M4 airport spur and airport tunnel • Further evidence is required to assess the adequacy of any strategy of improvements to local roads in the vicinity of the airport. • Further evidence is required of the feasibility and impacts during construction of placing M25 in tunnel.	strategic road network; • Additional road traffic, unless adequately mitigated, will increase delay and congestion not just for those accessing the airport, but also for other users of the strategic road network; • Links forecast to experience a worsening of already congested conditions include the M23 and sections of the M25 to the east and west of the M25/M23 junction; and • Further evidence is required to assess the adequacy of any strategy of improvements to local roads in the vicinity of the airport.
Impacts on other transport users – rail (by user – commuter, business, freight)	• Blend of rail services is matched directly to the diverse needs of those accessing the airport; • However, in addition, proposed new provision offers new public transport travel opportunities for movements across Central London; • New high speed public transport links are provided to designated growth and regeneration areas in east London; and • Much needed crowding relief is provided on some of the busiest parts of the public transport network in central London.	• Proposed new rail links offer potential new travel options, but further evidence is required of their value for non airport users; • Extra peak demand is generated on sections of the rail and underground system that are forecast to be near or at capacity even with future committed interventions; • While adequate capacity is likely to exist for those air passengers starting their journey at the airport, this reduces the capacity available for other users on highly crowded sections approaching the City Centre; and • Over-crowding is forecast on the Piccadilly line east of Acton Town, and on GWML east of Old Oak Common	• Extra peak demand is generated on sections of the rail system that are forecast to be near or at capacity even with future committed interventions; • Between East Croydon and Clapham Junction, very limited capacity even without airport expansion will lead to crowding, which will be accentuated with additional demand from expansion; and • While adequate capacity is likely to exist for those air passengers starting their journey at the airport, this reduces the capacity available for other users on highly crowded sections approaching Central London.

Criteria	Inner Thames Estuary	Heathrow	Gatwick
Other impacts - Connectivity to the airport, Reliability, resilience, Traveller comfort and convenience	• Rail links maximise connectivity by public transport from a broad range of origins and destinations, and for a broad range of users; • A range of Central London destinations are served directly (without need for interchange) within a 30 minute journey time, with destinations in West London reached within 45 minutes; • Connectivity is provided to east London growth and regeneration areas; • Direct rail access is provided to other parts of the UK via a link between HS1 and HS2; • Road connectivity is facilitated through direct access to the strategic road network; • Improvements to the strategic road network are designed to maintain levels of reliability; • Resilience is provided through access alternatives both by road (two alternative main road access routes) and by rail (alternative direct routes to the north and south of the river, and potentially multiple route options with interchange); and • The specific requirements of air passengers (including business travellers) in terms of speed, convenience and comfort are met.	Both locations: • While new public transport provision will enhance connectivity to the airports (for instance through the implementation of Thameslink at Gatwick), it needs to be demonstrated that connectivity is being achieved to the right places to serve passengers and staff; • Increasing levels of congestion and delay on the highway network will lead to diminished connectivity during peak times in the absence of adequate mitigation; • Road network reliability will reduce as airport expansion generates new road demand, unless specific mitigation measures are introduced; • Further evidence is required that the new rail provision to both Heathrow and Gatwick matches airport user aspirations in terms of comfort and convenience; and • Rail crowding analysis indicates that the levels of provision required to meet passenger expectations and to encourage the levels of modal shift to public transport assumed could fall short.	

4. Assessment of airport surface access possible interventions

4.1. Review of surface access enhancements for Heathrow Airport

A number of interventions are set out below which we believe should be reviewed to give an enhanced level of surface access service to users of an expanded Heathrow airport and to mitigate the negative impacts expansion will impose on non-airport users. We have also included schemes which may have a significant role to play in meeting AC criteria, but for which we believe funding to remain uncertain – this highlights the full potential cost of expansion.

Improved performance

Table 6 Potential Interventions

Measure	Reason	High-level cost (£bn)
Rail		
Western rail access to GWML	Accessibility and connectivity to the west for staff and air passengers	0.5
Link to HS2	Accessibility and connectivity to the Midlands and North for air passengers	Assume 2.5 (given on HS2 website as between 1.8 and 3.1)
SW/South/Airtrack	Accessibility and connectivity to the south and south west for staff and air passengers	1.7
Local public transport improvements	Local accessibility for staff and air passengers to support sustainable modal choices	0.5
Road		
Improvements to the surrounding strategic network	To mitigate against delay and congestion on M25 and M4 roads providing access to the airport, impacting both airport and non-airport users.	0.5 – 1.3* (*assumes typical unit rates for further widening and that widening is feasible. In practice, the feasibility of widening may be questionable on some route sections where width already exceeds design standards)

Optimum performance

Table 7 Optimum Performance Interventions

Measure	Reason	Additional high-level cost
Rail		
New high speed rail link to central London (Canary Wharf)	Maximise opportunity for modal shift to rail. Provide levels of service consistent with passenger expectations and international best practice. Improved journey times, connectivity, resilience and reliability	11.0

4.2. Review of surface access enhancements for Gatwick Airport

A number of interventions are set out below, which we believe should be reviewed to enhance level of service and to mitigate negative impacts on existing users, with the effect of improving performance against the criteria. We have also included schemes which may have a significant role to play in meeting AC criteria, but for which we believe funding to remain uncertain – as this highlights the full potential cost of expansion.

Improved performance

Table 8 Potential Interventions

Measure (in addition to those outlined in the AC Interim Report)	Reason	High-level cost (£bn)
Rail		
North Downs line electrification (Reigate – Guildford-Reading)	To mitigate against relatively poor accessibility to and from the west and south west, relieve impact on the BML and offer new trip opportunities without needing to interchange in Central/South London.	0.5
BML line upgrades	To mitigate against crowding on BML for both airport and non-airport rail users	0.5
Road		
Interventions on the M25 (J8-13)	To mitigate against increased delay and congestion for airport and non-airport users on the M25	1.5 – 1.7

Optimum performance

Table 9 Optimum Performance Interventions

Measure	Reason	High-level cost
Rail		
New high speed rail link to central London	Maximise opportunity for modal shift to rail. Provide levels of service consistent with passenger expectations and international best practice. Improved journey times, connectivity, resilience and reliability	8.7

4.3. Changes to Isle of Grain surface access strategy

Our proposition for rail surface access to the new hub airport, and associated cost estimates, remain broadly as reported in our July 2013 submission. However we have re-estimated costs, based upon the revised demand assumptions as set out above.

In previous assessments highway improvements have been assumed to be phased in line with demand. Unlike the assessment at Gatwick and Heathrow however, our costs have assumed that any additional airport-related traffic on the strategic network, takes a share of the costs of intervention, even if the larger part of the traffic increase is forecast to come about as a result of general traffic growth. Table 10 therefore provides estimates for more direct comparison with the assessment at other locations

Table 10 Potential Interventions

Assumption	Highway cost (£bn)
Assumed intervention on all parts of the strategic road network experiencing peak airport related flow increase in excess of 1200 in the peak hour, irrespective of magnitude of background growth	4.0
Corresponding cost if total cost is shared proportionally between growth as a result of airport demand, and overall background growth	3.3

Appendix A. Data Sources and References

A.1. Heathrow Airport surface access trip volumes

Data	Value	Source
Total annual air passengers (mppa)	72.33	Heathrow Airport Traffic Statistics
Peak Month Passenger Demand	6.96	Heathrow Airport Traffic Statistics
Ratio of Peak Month to Peak Day	0.034	BAA Annual Patterns of Traffic 2010
Peak Day Passenger Demand	0.23	6.96x0.034
Proportion of connections	36.7%	2012 CAA Pax Survey Report
Non-transfer air passengers for Peak Day	147,589	Peak Day minus connections
Proportion of additional visitors	9.7%	2012 CAA Pax Survey Report
Proportion of Peak arrivals / departures	Existing flight profiles	
AM Peak Period two-way trips	30,365	147,589 plus additional visitors applied to flight profile (0700-1000 hours)
AM Peak Hour two-way trips	10,122	Average of 30,365
Total Staff Members	76,640	Heathrow Airport 2011 Staff Survey
Daily staff trips – average	65,098	Heathrow Airport 2011 Staff Survey (average of days worked)

A.2. Heathrow Airport –geographical distribution of passenger surface access trips

Origin / destination	% of total air passengers
Central / Inner London	22
London NW	10
London SW	10
London NE	6
London SE	3
London total	**51**
“West of London” – Oxon, Bucks, Beds, Surrey, Hants	19
Rest of UK	30
Source: CAA 2011 data	

A.3. Heathrow Airport –geographical distribution of staff surface access trips

Origin / destination	% of total staff
LB Hounslow	13
LB Hillingdon / Wandsworth	12
LB Ealing	9
Slough	5
Spelthorne	5
Windsor and M	2
LB Richmond / Kingston	4
Runnymede/Surrey Heath	4
Bracknell Forest	2
LB Harrow / Brent / Haringey	3
South East	11
Other UK	23
Overseas/not known	6
Source: Heathrow Airport 2011 Staff Survey	

A.4. Heathrow Airport –mode split by passenger surface access trips by origin / destination

Origin / destination	% private	% public
All UK	60	40
Greater London	50	50
SE	77	23
East Mids	64	36
East of England	71	29
NE	19	81
NW	23	77
Scot	23	77
SW	59	41
Wales	51	49
West Mid	67	33
Yorks and Humbs	60	40
Source: CAA 2011 data		

A.5. Heathrow Airport –mode split by staff surface access trips

Mode	% staff
Car (single occupancy)	59
Car driver (with passenger)	3
Car passenger	3
Taxi / Minicab	0
Motorcycle (more than 125cc)	1
Motorcycle (less than 125cc)	1
Train	0
Heathrow Connect	1
Heathrow Express	1
Underground	8
Local bus	14
Coach	1
Work bus	3
Air	4
Cycle	0
Walk	0
Source: Heathrow Airport 2011 Staff Survey	

A.6. Gatwick Airport surface access trip volumes

Data	Value	Source
Total annual air passengers (mppa)	35.43	CAA Airport Statistics
Peak Month Passenger Demand	4.032	London Gatwick traffic results for August 2013
Ratio of Peak Month to Peak Day	0.038	BAA Annual Patterns of Traffic 2010
Peak Day Passenger Demand	0.15	4.032x0.038
Proportion of connections	13.1%	Connecting UK Airports
Non-transfer air passengers for Peak Day	133,952	Peak Day minus connections
Proportion of additional visitors	2.9%	2012 CAA Pax Survey Report
Proportion of Peak arrivals / departures	Existing flight profiles	
AM Peak Period two-way trips	21,923	133,952 plus additional visitors applied to flight profile (0700-1000 hours)
AM Peak Hour two-way trips	7,308	Average of 21,923
Total Staff Members	21,109	Heathrow Airport 2011 Staff Survey
Daily staff trips – average	15,198	72% assumed as per last study

A.7. Gatwick Airport –geographical distribution of passenger surface access trips

Origin / destination	% of total air passengers
Greater London	39
South East	37
Rest of UK	24
Source: CAA 2011 data	

A.8. Gatwick Airport –geographical distribution of staff surface access trips

Origin / destination	% of total staff
Crawley	35
Horley	7
Brighton	6
Horsham	6
London SW and SE	3
Haywards Heath	3
Redhill	3
Burgess Hill	2
East Grinstead	2
Croydon	2
Other	33
Source: Gatwick Surface Access Strategy 2012 – 2030	

A.9. Gatwick Airport –mode split by passenger surface access trips by origin / destination

Origin / destination	% private	% public
All UK	60	40
Greater London	37	63
SE	77	23
East Mids	72	28
East of England	80	20
NE	34	66
NW	38	62
Scot	80	20
SW	72	28
Wales	60	40
West Mid	67	33
Yorks and Humbs	57	43
Source: CAA 2011 data		

A.10. Gatwick Airport –mode split by staff surface access trips

Mode	% staff
Car	65
Car passenger	4
Taxi / Minicab	1
Motorcycle (more than 125cc)	1
Motorcycle (less than 125cc)	1
Train	12
Local bus and Coach	13
Air	1
Cycle	1
Walk	1
Source: Gatwick Surface Access Strategy 2012 - 2030	

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