Ros McIntyre - Interested Party 20014158

Written summary of oral submission to the Open Floor Hearing on 18th March 2019

Airports Commission submission – misrepresentation by RSP in answer to the ExA's written questions

In response to ND 1.1 RSP says that the Airports Commission only considered Manston as a passenger airport; that the Commission "designated" Manston as a reliever airport and that the November 2013 sale to Ann Gloag means that the Airports Commission did not consider Manston as a freight airport.

None of this is true.

NNF has already set out the Commission's rejection of the idea that Manston could be a reliever airport (NNF02 and more fully in NNF06). The Commission rejected the idea completely.¹

In July 2013 Infratil submitted long term proposals to the Airports Commission which included freight. The operator had previously talked of:

"Manston's role as a dedicated air cargo facility capable of accepting all-cargo flights of any size displaced voluntary or because of new Traffic Distribution Rules from Heathrow and Gatwick (and ultimately possibly Stansted),..."

The July 2013 document said that Manston had the advantage of:

- Being open to traffic that would be considered too "noise sensitive" in London
- Having no night flight restrictions
- Having almost as much land as Stansted (this is relevant to RSP's CPO ambitions today and its desire to take land for a smaller operation).

Infratil said that, as passenger traffic grew at Stansted, Manston could be used for freight. Manston could have up to 750,000 tonnes of freight by 2050 if it took all of Stansted's freight, using an average freight payload of 35 tonnes, rising to 60 tonnes – rather more than the payload that RSP is suggesting for its proposal, but then RSP needs to persuade the ExA of a minimum number of cargo ATMs. The airport could handle 1m tonnes of freight.

The document said the airport's success would depend on:

"a combination of fiscal interventions of the type suggested in our Interim Measures submission to work in tandem with increasing congestion at other airports to change market perceptions."

¹ "No commercial details provided, but acceptance that viability is dependent on finding the right fiscal signals or regulatory mechanisms to persuade airlines and air cargo carriers to loosen their attachment to the principal London airports and enable Manston to be "switched-on" as a "relief valve" for the regions [sic] most congested airports, implies that private sector funding may be difficult to attract." [Original bold and underlining].

It said that airlines would need to be given incentives to move to Manston and:

"a range of fiscal or regulatory push/pull incentive mechanisms, of which much the most effective is likely to be differential APD on passenger services and TDRs² on all cargo aircraft. It also would be made significantly more attractive by direct rail connection."

So, the Commission <u>did</u> consider freight proposals for Manston. RSP should know this. The document was submitted by Charles Buchanan, who joined Northpoint Aviation when he left Manston. Mr Buchanan's principal adviser for this document was Chris Cain. Mr Cain is now at Northpoint Aviation and has been working with ROIC/RSP since at least 2014/2015.

It is instructive that Mr Cain and Mr Buchanan thought that Manston would need significant help to persuade airlines and operators to use it.

EVIDENCE

The airport operator's submission of July 2013 to the Airports Commission follows. I have highlighted the relevant paragraphs. These appear on pages 2, 3, 10 (the start of the freight section), 11, 12, 15 to 19 and 24 (which sets out Mr Cain's role)

² TDR - traffic distribution rules, i.e. forcing aircraft not to use certain airports





Long Term Proposals for Development July 2013





Long Term Proposals for the Development of Manston – Kent's International Airport

Submission to the Airports Commission

19 July, 2013

1. Introduction

This document sets out in outline form, proposals for the long-term development of Manston - Kent's International Airport. It has been drawn up as a response to the Airport's Commission's invitation in its *Guidance Document 01: Submitting evidence* and proposals to the Airports Commission (Feb 2013), which specifies that submissions should:

- Outline proposals and give an overview of the level of additional capacity that would be provided, along with some of the key economic, social and environmental considerations associated with it.
- Adopt an integrated approach to the proposals, taking into account a broad range of factors, including possible problems raised by the proposals and means of resolving or mitigating them.
- Facilitate the early identification of barriers to delivery of the proposed scheme by indicating whether they stem from legal (UK or EU), technical or other sources.
- State how the proposals would operate (e.g. the types of aircraft and the mix of short, medium and long-haul traffic they would be able to accommodate), and how they would expect the airline sector, including full-service, low cost and freight carriers and other airports in the UK and internationally, to respond when the additional capacity becomes available.
- Assess the impacts of the scheme being promoted under six broad categories of factors: economic; social; climate change; local environmental; accessibility and feasibility.

Commission *Guidance Document No.2: Long Term Options - Sift Criteria*, then added 'strategic fit' to the above list following consultation on the original list of factors and also split feasibility into 'cost' and 'deliverability'.



We have endeavoured to follow this specification in preparing this submission, but given that the Airport is currently going through a sale process and as agreed with the Commission Secretariat, this submission is of necessity indicative and the associated appraisal of impacts at a very high level. Should the Commission wish to look in more detail at the contribution Manston could make to available capacity in a future South East airports system, we would willingly develop this submission further, through the egis of either the current or prospective future owners.

2. Relationship Between Manston's Potential Interim Role and our Long Term Proposals

Based on our meeting with the Commission Secretariat on 22nd May, we are conscious of the read across there is likely to be between interim – particularly medium term (5-15 year) initiatives and long term proposals. With this in mind, it is worth cross-referencing our Interim Measures submission at this juncture, as it explicitly highlights the potential for Manston to develop a number of specialist roles within the South East airport system, as a forerunner to its long term development as a substantive reliever airport, which is a concept we focus on later in this submission.

The Interim Measures submission envisaged:

(a) Expanding Manston's currently modest passenger traffic by:

'Finding the right fiscal signals or regulatory mechanisms to persuade airlines and air cargo carriers to loosen their attachment to the principal London airports and enable Manston to be 'switched-on' as a 'release valve' for the regions most congested airports', in a way that will allow a significant proportion of traffic that is currently travelling across/through London or around the M25 from Manston's natural catchment area to access Heathrow and Gatwick to be serviced more locally.'

It goes on to note that:

'Displacement of traffic of the kind suggested above, is likely to take the form of smaller regional aircraft no longer being able to access or afford slots at the Heathrow and/or Gatwick, resulting in domestic regional services, thin international routes and lower value leisure routes being withdrawn or moved to another airport (one of which would be Manston) and back-filled by larger aircraft flying long haul or high density short haul routes.'

(b) Expanding Manston's role as a dedicated air cargo facility capable of accepting all-cargo flights of any size displaced voluntary or because of new Traffic Distribution Rules from Heathrow and Gatwick (and ultimately possibly Stansted),



in a location from which the whole of London and most of the South can be reached within acceptable trucking times;

- (c) Formally designating Manston as a principal diversion airport for Gatwick and Heathrow, and equipping it accordingly, so that it can help to deliver a measure of system-wide resilience that would allow these airports to operate at higher levels of slot utilisation than might otherwise be possible while new capacity is being created;
- (d) Displacing long term MRO (i.e. C and D checks), flight testing and commercial pilot training to Manston (as is currently happening with BA acceptance trial of the A380/B787); or
- (e) Increasing its role as a Helicopter base as a result of the arrival of The Search and Rescue operation, the existing flying school and the potential for servicing offshore wind farm arrays located nearby.

These Interim proposals were all about changing the industry's perception of Manston as being too remote from London and serving only a small discrete catchment in East Kent, to one where it is seen as multi-faceted; it being a reliever airport for the capital, combining an expanding passenger role particularly for low cost and charter flights, with other activities demanding:

- an established, licensed and competitively priced airport with a long runway and substantial spare apron;
- few operating restrictions (crucially Manston lies outside outside the London TMA although there is some interaction with it, and is open to traffic that would be considered noise sensitive in London);
- relatively close proximity to London (Manston is only 60 miles, or 60 minutes travel time, east of the Capital) and near Europe.

We recognise that to achieve these ambitions we need some a combination of fiscal interventions of the type suggested in our Interim Measures submission to work in tandem with increasing congestion at other airports to change market perceptions. But with this in mind, we are already taking steps to secure a London designation with IATA and have received support from Gatwick and Heathrow for doing so.

3. Market Analysis to 2030

From the demand profiling work we undertook for our Interim Measures submission, we are confident that there are a number of niche's in the South East passenger market that Manston could help to address, not only in the medium term, but depending on future capacity development scenarios elsewhere, also in the period between 2025-50, which we are taking to correspond with the longer term.



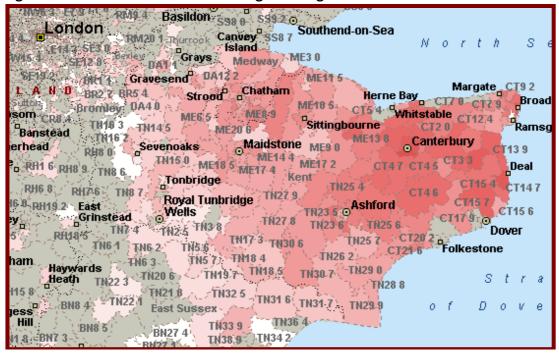
Catchment Area

Using the most recent CAA survey data we have access to (from 2011 and 2012), we have been able to build up a picture of the nature and geographical distribution of existing demand within Manston's current core and extended catchment areas. These are illustrated in Figure 1, whose authenticity is verified by empirical evidence gathered during EU Jets operation from Manston in 2005, illustrated in Figure 2.



Figure 1: Manston Airports Catchment Area

Figure 2: Distribution of EU Jet Passengers Using Manston in 2005





As can be seen, while the Airport's core catchment is focused in Kent within an area bounded by the M25 and M20, its wider (or contested catchment) expands beyond both into East Sussex and the outer London suburbs East and South East of the capital.

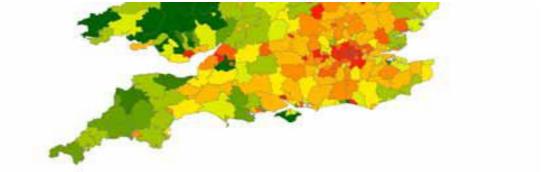
Based on this analysis, we sought to identify how many air travellers who use other airports in the London area, have their origins or destinations within Manston's catchment area. We looked at this first based on existing surface access infrastructure and associated travel times, and then extrapolated this based on assumptions about those links to be improved or extended. This then provided a useful platform for the second part of the analysis, which examined the picture painted by DfT's 2011 and 2013 forecasts, in terms of the potential scale and nature of the capacity shortfall facing the South East moving forwards, and the contribution Manston can potentially make to meeting some of that shortfall by targeting certain key markets. This in turn, then acts as a forerunner to a brief description of how Manston could be developed to meet this demand before setting out a series of generic and airport specific policy propositions that we consider necessary to facilitate Manston taking on this role.

It is worth pointing out at this juncture, that this approach has been driven by the absence of any DfT Forecasting model runs that have included Manston. We know that there are spare slots within the model to add airports, and we hope that the Commission will at the very least request DfT produce model outputs for Manston under a Constrained (or Max Use) scenario and one with one additional runway added either at Heathrow or Stansted by 2030 but with the surface access enhancements we outline later incorporated.

Demand Assessment

Figure 3 below, provides an overview of current demand density in the southernmost part of the UK. As can be seen, the level of demand for air travel emanating from Kent is comparable with other parts of the Home Counties around London, save for those immediately adjacent to Heathrow and Gatwick.

Figure 3: Density of Demand in the Southern Half of England and Wales



Source: CAA Data



Our analysis of O&D survey data collected from the other London airports, indicates that Manston's core and floating catchment areas currently generate demand of between 3.5-4.0m passengers per annum, depending on where the exact boundaries of the Airport's catchment is drawn (see Table 1).

Table 1: Leakage from Manston's Catchment

MSE	Leakage		
	J		
Outer catchment	Business	Leisure	Total
Dartford District	39,433	231,649	271,082
Gravesham District	31,236	158,594	189,829
Hastings District	26,554	135,992	162,546
Maidstone District	52,142	300,236	352,378
Medway	68,439	388,215	456,654
Rother District	15,862	109,763	125,626
Sevenoaks District	41,058	295,695	336,753
Tonbridge and Malling District	27,932	198,425	226,357
Tunbridge Wells District	79,579	254,615	334,194
Grand Total	382,235	2,073,183	2,455,418
MSE	Leakage		
Inner catchment			
inner catcinnent	Business	Leisure	Total
Ashford District	Business 33,918	193,472	Total 227,390
Ashford District	33,918	193,472	227,390
Ashford District Canterbury District	33,918 46,218	193,472 294,806	227,390 341,024
Ashford District Canterbury District Dover District	33,918 46,218 20,628	193,472 294,806 164,176	227,390 341,024 184,805
Ashford District Canterbury District Dover District Shepway District	33,918 46,218 20,628 19,251	193,472 294,806 164,176 125,768	227,390 341,024 184,805 145,018
Ashford District Canterbury District Dover District Shepway District Swale District	33,918 46,218 20,628 19,251 37,863	193,472 294,806 164,176 125,768 148,213	227,390 341,024 184,805 145,018 186,076
Ashford District Canterbury District Dover District Shepway District Swale District Thanet District	33,918 46,218 20,628 19,251 37,863 50,628	193,472 294,806 164,176 125,768 148,213 181,701	227,390 341,024 184,805 145,018 186,076 232,329
Ashford District Canterbury District Dover District Shepway District Swale District Thanet District	33,918 46,218 20,628 19,251 37,863 50,628	193,472 294,806 164,176 125,768 148,213 181,701	227,390 341,024 184,805 145,018 186,076 232,329
Ashford District Canterbury District Dover District Shepway District Swale District Thanet District Grand Total	33,918 46,218 20,628 19,251 37,863 50,628 208,504	193,472 294,806 164,176 125,768 148,213 181,701	227,390 341,024 184,805 145,018 186,076 232,329

However, from that same analysis and the fact that between 50-100,000 passengers are expected to use Manston this year, we know that most of this traffic is 'leaking' to other South East airports. The data suggests by far the largest percentage of this leaking traffic (around 85%) uses Gatwick and that much of it is leisure orientated (i.e. it is predominantly point-to-point and therefore not dependent on access to a hub airport such as Heathrow to be viable).

This is important, because in a Maximum Use scenario such as that the South East is likely to face until at least 2025, which is likely to be characterised by an increasing shortfall in capacity relative to demand, it is the premium hub airports such as



Heathrow and Gatwick where capacity will be most constrained (see Appendix A). This also means that it is these airports where the price of access is likely to rise substantially, displacing thinner route domestic and short haul regional and low cost traffic serving routes with a high VFR/leisure content — a process that can be seen in action with Flybe's sale of its Gatwick slots, but also in Appendix B. It is exactly this traffic, where the journey's are point-to-point, frequency is less significant, airport charges need to be low, but speed and convenience of using an airport high that will have the greatest potential to move to alternative lower cost airports such as Manston.

Demand Forecasts to 2030

Adopting annualized average growth of 2%, which is compatible with DfT's latest's forecasts¹, we believe that overall demand in Manston's catchment area will increase to around 5 mppa by 2025 and 6 mppa by 2030 based - and this is crucial - on current surface access infrastructure (see Figure 4).

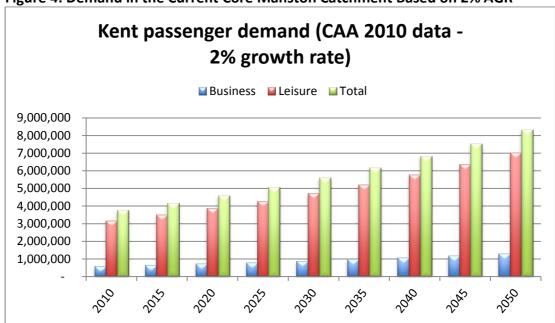


Figure 4: Demand in the Current Core Manston Catchment Based on 2% AGR

However, if journey times were materially improved, for example if rail journey times to a London terminus could be reduced to around 60 minutes and to outer London interchanges such as Bromley South and Stratford to 45-50 minutes, this catchment based analysis suggests the potential market available to services from Manston might widen to closer to 8-10 mppa, of which 50% might be realistically be capable of being captured given the right fiscal incentives. That would be consistent with a potential passenger throughput of 4 mppa being delivered at Manston by 2025 and +5 mppa by 2030.

¹ DfT: Aviation Forecasts for the UK (Feb 2013)



This is not, of course, in itself a solution to the capacity crises the South East currently faces, but if combined with similar incremental enhancements at other less intensively used airports in the outer ring of the South East (eg Southend, Southampton and Luton) the overall impact could be materially to mitigate a significant amount of the damage that might be caused by the lack of capacity at the major airports over the next 10-15 years.

The table in Appendix C looks at the same core issue based on another data set, notably the DfT's own forecasts published in 2011 and 2013. We have included analysis based on both of these because as we explained in our response to the Demand Forecasting Discussion Paper, we think the 2013 Forecasts represent a particularly bleak prognosis, which may be a case of the Department going too far in down-grading its underlying assumptions, or alternatively being creative in imposing a range of external policy constraints which produce the same answer.

The tables in Appendix C clearly show a capacity shortfall emerging under each of three forecasting scenarios in the period between 2020-30. In the case of Maximum Use, the shortfall is much larger under the 2011 forecasts than the newer 2013 projections, but in both cases there is a gap, which the tables show Manston's potential contribution in addressing. In the former case Manston does not completely meet the shortfall, in the latter and the 2 additional Runways Scenario it is shown as potentially being able to do this.

Capturing the Underlying Demand

The key to delivering this outcome, is finding the markets that Manston can engage with to the extent that it can clawback substantial volumes of traffic from within its catchment area and the policy measures which are needed to help it do this. The former include:

- Local outbound (and some inbound) business/VFR traffic from/to Kent, using regional jets and turboprops to access a number of domestic markets in Scotland (Edinburgh, Glasgow and Aberdeen), the North of England (particularly Manchester, Leeds and possibly the North East all of which are 4-5 hours away from the main population centres in Kent by car or train), Northern Ireland, Wales (Cardiff is 4 hours away with a free flowing M25) and the far South West (especially Exeter and Cornwall).
- Major cities in Northern and Western Europe, especially if also in the form of access to hub offering onward travel to a range of short and long haul international destinations.
- Point-to-point outbound leisure travel with low cost or charter carriers, not just to the likes of the Far South West, Scotland and the Channel Isles within the UK and Ireland, but also to sun, ski and city break destinations in mainland Europe.
- Inbound leisure/VFR traffic from across the UK and within Europe looking for a cost effective way of accessing London and the wider South East.



 In the medium term, long haul low cost carriers displaced from higher cost capacity constrained airports and tertiary network carriers from Africa, CIS and near Asia

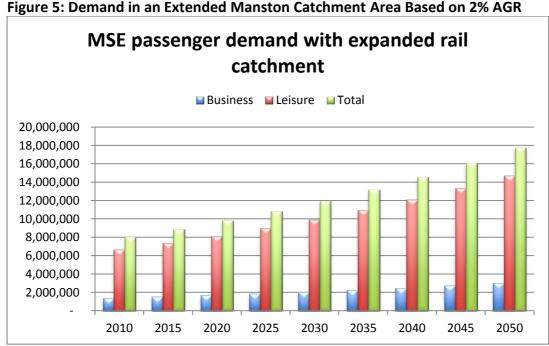
4. **Demand Forecasts to 2050**

4.1 Passenger

Based on the forgoing analysis, and adopting growth rates compatible with DfT's latest's forecasts², we believe that demand in the current core catchment area will increase from 5 mppa in 2030 to around 8.5 mppa by 2050.

However, if key surface access enhancements were to be made, particularly to rail, we believe journey times to the Airport from South East, East and Central London could be significantly reduced and consequently the Airport's catchment area could be substantially extended into high density population centres within the M25

Figure 5 estimates future demand based on this assumed extended catchment area, which is associated with extensions to the high-speed rail network in Kent reducing journey times for domestic rolling stock to London St Pancras to around 40-45 minutes and to Stratford to 35-40 minutes and to Bromley South and Victoria by 15-20 minutes. This would potentially greatly improve Manston's accessibility from East and South East London and therefore its potential to penetrate the large urban markets they contain.



² DfT: Ibid (Feb 2013)



The effect is to increase the Airport's potential passenger market with its catchment to closer to 18 mppa by 2050 and depending on market penetration of 50 or 60% total passengers to 9-11m. If other inbound traffic that is struggling to find suitable capacity within the London system (particularly low cost and tertiary long haul) is then added, it raises Manston's potential market by a further 4-5mppa to up to 16mppa by 2050 as reflected in the projection in Table 2.

Table 2: Forecast Traffic Split

Table 211 Orcease Traine opine				
Type of Traffic	2025	2030	2040	2050
Domestic	400,000	600,000	800,000	1,000,000
Short Haul - Legacy/ Regional	600,000	1,000,000	1,400,000	1,800,000
LCC International Short Haul	2,400,000	5,000,000	7,300,000	9,300,000
Charter Short and Long Haul	400,000	600,000	1,000,000	1,400,000
Low Cost/Second Long Haul	200,000	800,000	1,500,000	2,500,000
Total Pax	4,000,000	8,000,000	12,000,000	16,000,000

All of this points to a potentially significant role for Manston if surface access times are improved, but at the moment there is no way of confirming this as Manston has not been modelled by the DfT. We would, therefore like to use this submission to formally request that the Commission ask DfT to do this and that they discuss with us the input assumptions associated with the model run.

4.2 Freight

Whilst Manston is known as a freight airport in aviation circles, its value as a cost effective and logistically sound base for freight is probably not fully appreciated. So for example the fact that it is one of the key logistics nodes on perishables flown in from Africa and that its location allows much of the area south of the M25 to be accessed with 2.5 hour trucking times (something which East Midlands cannot achieve) is less understood.

With this in mind, and the pressure to move dedicated cargo aircraft from Heathrow and Gatwick, there is a distinctive market for purpose built cargo facilities in the South East and as the economy recovers we anticipate that this will grow substantially. At the moment, it is Stansted and Manston who are competing for this traffic. But as Stansted passenger traffic begins to build up again, we anticipate constraints being imposed on this sector and that Manston will develop into the primary outlet for dedicated freighter aircraft in the South East.

It is very difficult to forecast increases in freight tonnages with any accuracy because the decisions of airlines such as BA Cargo, Cargolux and any of the integrators can radically alter throughputs. Tonnages at Manston have recovered from their recessionary low point of 25,000 tonnes in 2008 to over 31,000 tonnes last year; but



they remain someway from the highpoint of 43,000 tonnes in 2003. If all cargo aircraft get displaced from Heathrow and Gatwick over the next 5-10 years, as seems likely, we would anticipate conservatively that Manston will be handling 100,000 tonnes of freight by 2020. In the subsequent 10 years when capacity constraints in the South East are likely to tightest, and assuming Stansted is not made a new hub and so displaces all cargo aircraft itself (210,000T in 2012), we see a further doubling or tripling of volume again to between 500-750,000 tonnes by 2050, although the airports does have the physical scope to create facilities capable of handling up to 1 million tonnes of cargo.

What is certain is that Manston is ideally equipped and located to provide a long term all cargo facility for the South East. It would benefit from being recognised as such in the Commission's recommendations to Government.

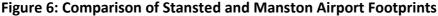
5. The Reliever Airport Concept – The Long Term Future for Manston

While we recognise that Manston has yet to make a big leap forward in terms of passenger service development in the way that Southend has, there have been a number of false dawns (eg EUJet in 2005 and Flybe in 2011) which have had shown evidence of a real market of passengers who will use services from Manston and their long term sustainability is proven at accessible fare levels. Having analysed our market in-depth and taking the success of attracting KLM and Bristow's Search and Rescue operation to fly from the airport as a demonstration of faith in its future, we remain convinced that with the right supporting policy measures, Manston can serve a number of important local and wider regional niche markets of the kind outlined earlier extremely effectively and in so doing help to take some of the pressure of the larger airports in the region.

In terms of development required to play this role, the Airport's 2008 Masterplan sets out in physical terms how the level of passenger and freight traffic projected for 2025-30 could be met. The key plans from that document are included for convenience at in Appendix D as Figures D1-D4. These show an overarching layout plan for the airport today, what would be required to develop it to 6mmpa including a more detailed terminal area concept and final drawing showing development proposals for the airport at around 10mmpa with a possible parallel taxiway and a major increase in apron and car parking areas. They also include provision for a major expansion of cargo facilities on the kinds of scale discussed above.

The fact is that the airport has a large landholding, very nearly equivalent to that of the current Stansted airport, which has Government approval to grow to 35mppa (see Figure 6).







Manston therefore has huge scope to grow and expand passenger and cargo handling facilities. It has one of the longer single runways of all the airports in the South East and therefore can accommodate most aircraft types and has no real prospect of running out of capacity for the foreseeable future. The airport operator simply needs to be given the right framework of policy within which to invest and airlines the right incentives to migrate some or all of their operations for the necessary development to be brought forward.

In this regard in the short-medium term, as we indicated in our Interim Measures submission, Manston would benefit from a range of fiscal or regulatory push/pull incentive mechanisms, of which much the most effective is likely to be differential APD on passenger services and TDRs on all cargo aircraft. It also would be made significantly more attractive by direct rail connection, enhancements to the existing rail routing to reduce journey times close to 60 minutes from the current 75 minutes, the creation of, and direct road access to, a new Thanet Parkway Station and improved access to the Minster roundabout. There are no major physical impediments to achieving these surface access enhancements, while the costs, which we estimate at between £40-50mi, in overall terms are modest.

When set alongside the fact that the Manston is already a licensed airfield with currently has no night-time restrictions, dual carriageway access from the M25 and wide-spread political support from across Kent for its development, it provides an unusual but extremely promising canvass capable of making a material contribution to the South East's short and medium term capacity needs, with the added



advantage that it would help to improve the significant western bias of current capacity distribution around London.

It is our contention, therefore, with this platform, that under certain of the capacity scenarios that the Commission is likely to consider for the South East Airport's system, Manston can also play a key role as a long term 'reliever' airport:

- serving outbound business and leisure traffic from the South East corner of the region and inbound leisure traffic looking for a cost effective way of accessing London;
- targeting key price sensitive market segments (eg based outbound low cost, inbound low cost and long haul low cost carriers displaced from higher cost capacity constrained airports);
- offering priority tertiary network carriers from Africa, CIS and near Asia a
 foothold in the London airport system while they wait for slots to become
 available at higher yielding airports; and
- attracting charter carriers and regional carriers serving domestic and business destinations in Europe.

In addition we envisage that the airport will continue to have spare capacity for some time to come for the 15,000 or so military, aid, business aviation, commercial training and GA flights it already accommodates, with some potential for further growth.

But in system terms, perhaps of equal importance is Manston's potential to build 'resilience capability' by offering a convenient alternative for traffic diverted from more congested airports during bad weather or as a consequence of airfield operational or security incidents. Other secondary and tertiary airports in the South East do not offer this potential capacity because they do not have a runway of sufficient length or weight-bearing strength, air traffic access free from the constraints of the London TMA, scope for creating sufficient apron to accept large numbers of London based aircraft and prospective terminal capacity and high quality surface access for passengers to make their onward journey to London.

If this contingency capability were to be factored into an overall appraisal of the functioning of a highly congested airport system such as that serving London and the South East, it is likely it value would be material because it would allow scheduling of capacity beyond levels that resilience considerations might otherwise allow. And it begs the question whether this is an argument for the formal designation of Manston for this purpose and that a 'resilience fee' should be levied on the beneficiary airports in return for this capability being maintained.

Finally the airport has land holdings that would allow substantive aviation related and associated development (eg MRO, aircraft dismantling and parking) to be facilitated within the London system, thereby freeing up space only for essential line



maintenance and aircraft parking at the principal South East system airports while retaining relatively easy ground and air access from these airports when it is needed.

These are all 'non-mainstream' activities that a fully functioning airport system in a mega-region with a World city like London at its heart needs to be able to provide. If key secondary airports like Manston can take on these roles alongside being able to better serve the growing passenger market within its catchment, allowing core passenger airports to operate more effectively, then they offer an extremely valuable capability in system terms that it would be all to easy to ignore.

The "reliever" airport concept is of course well established in the airport systems serving other World Cities, for example:

- Stewart, White Plains, McArthur, Teterboro, Morristown and Atlantic City airports all serve the city of New York and the wider tri-state area in a variety of functionally or geographically distinct ways which allow JFK, La Guardia and Newark to be used optimally.
- Burbank, Ontario, Orange County and Long Beech offer the same respite for LAX in *Los Angeles*.
- Midway, Du Page, Gary/Chicago, Rockford and Chicago Executive for O'Hare have an equivalent role in the *Chicago* airports system.
- Whilst closer to home, Le Bourget, Beauvais, Vatry, Pontoise and Orly act as relievers for CDG in *Paris* and Eaglesbach and Hahn do the same in *Frankfurt*.

For this reason we believe that within a broader system dynamic, the 'reliever airport model' is worthy of consideration by the Commission within the context of their deliberations over the long term functionality of what is by some considerable margin the world's busiest and most complicated airport system.

With this in mind, it is worth highlighting that Manston's potential development South of the Thames in the East of the region, would complement those of Southend and Stansted North of the Thames, especially if the Commission did not support a major new hub being built in the Thames Estuary or on Cliffe Marshes. Moreover it would:

- Make full and effective use of an existing infrastructure asset;
- Offer a cost to capacity generated ratio that would be extremely attractive compared to most other options; and if thus recognized
- Stimulate short and medium term activity as well as providing for long term capacity.



6. An Outline Development Scheme for Manston

With the forgoing potential in mind, we have developed some indicative proposals for Manston based on the forecast passenger volumes in Table 2 (see earlier) and the air traffic movement forecasts in Table 3.

Table 3: Forecast Air Traffic Movements

Type of Movement	2025	2030	2040	2050
No of Air Transport Movements	47,059	80,000	104,348	123,077
No of freight movements	5,714	9,412	14,000	16,667
No of GA & Military Movements	13,500	16,000	18,000	20,000
Total Movements	66,273	105,412	136,348	159,784

The commercial air transport movements in Table 3 are based assumptions about average passenger aircraft size derived from benchmark airports elsewhere in the UK in Table 4, as set out alongside cargo payload size assumptions in Table 5.

Table 4: Benchmarked Airports Average Aircraft Size

Airport	Pax 2012	ATMs	Ave Load
Luton	9,618,000	75,783	127
Stansted	17,473,000	132,920	131
East Midlands	4,077,000	58,556	70
Glasgow	7,158,000	74,615	96
Bristol	5,922,000	51,160	116
Birmingham Source: CAA Data	8,923,000	84,769	105



Table 5: Manston - Assumed Average Aircraft Size

Assumed Metrics	2025	2030	2040	2050
Ave Pax Load per Aircraft*	85	100	115	130
Ave Freight Payload Per Aircraft**	35	42.5	50	60

Source: Consultants estimates

Notes:* Assumptions based on the incremental range in Table 4

** Consultants estimates of tonnages on aircraft types using Manston and equivalent airports

They are, therefore, internally consistent with the passenger forecasts in Table 2 and the projected tonnages to 2050 outlined earlier. These forecasts then translate into projections of traffic movements shown in Table 6

Table 6: Manston - Runway Movement Rates

Key Metrics	2025	2030	2040	2050
Movements/PA*	66,273	105,412	136,348	159,744
Movements/Day**	184	293	379	444
Movements/Hr***	10.8	17.2	22.3	26.1
Range Mvts/Hr***	8-14	12-24	15-30	18-34

Source: Consultants Calculations

Notes: * ATMs, GA and Cargo Movements combined

- ** Annual movements divided by 360 days
- *** Daily movements divided by 17 hrs (assumes operating hours from 6.00am -11.00pm)
- **** Range derived by assuming off-peak hours have two-thirds of the average movement rate and during peak hours the movement rate is a third higher than the average (figures have been rounded)

In terms of a sense check, it is worth comparing the annual movement projections in Table 6 with those of existing airports in 2012 provided in Table 4. On this basis the forecasts suggest Manston will grow from an airport slightly larger than East Midlands today in 2025, to one the current size of Stansted in 2050. This is exactly in line with our conceptualization of Manston's future under scenarios where there are no new runways built in the South East or where an additional runway is built at Heathrow or Stansted.

Taking these traffic and movement estimates, and using the context provided by our previous work on the Airport Masterplan, we have derived a long term land use plan for Manston as set out in Figure 7 below.



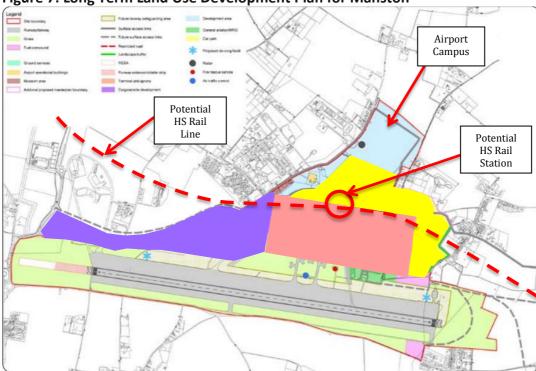


Figure 7: Long Term Land Use Development Plan for Manston

The principal features of the proposals within the operational boundary are as follows:

- A 2,700m runway with CAT 1 ILS, accompanying full length taxiway, RETS and expanded hold areas to allow up to 35 movements an hour
- A terminal building capable of being developed incrementally to cater for 15-20mppa with associated apron. The aim will be to offer standard 30-minute check-in but 20 minutes for fast-track passengers and conveniently available car parking and public transport access.
- Cargo facilities, which would also be developed incrementally for up to 1 million tonnes per annum.
- An MRO and an aircraft recycling zone
- A dedicated FBO/GA/Military handling complex; and an associated apron
- Additional hard-standing areas for parking aircraft

Outside the boundary fence, there will be land allocated for:

- Between 4-5,000 parking spaces, some of which may be decked as the airport grows.
- A railway station and associated public transport interchange, as closely integrated with the terminal building as possible.
- A sustainable energy power generation complex combining biomass from airport grass cuttings and agricultural waste from the surrounding farms and a solar farm in the form of a networked facility linked to panels on the terminal, cargo and maintenance shed roofs, car ports over the at-grade spaces in the



car parks and separate dedicated areas

- An Airport 'Campus' development sitting outside but adjacent to the Airport, potentially comprising:
 - a mix of B1, B2 and B8 development of 1.0-1.5m sq ft, tertiary education facilities including an aviation/aerospace training academy, 2-3 hotels and possibly a modest conference/trade-hall/exhibition space and PFS;
 - an integrated airport village incorporating a small village/campus centre
 of convenience shop units, a small 'express' style supermarket, pub,
 crèche, GP surgery/dentist and a combination of student accommodation
 500 units, 300 low cost houses for rent and 700 houses for sale;
 - a factory outlet park offering up to 250,000 sq ft of units;

The existing Manston Business Park will continue to be built out as a logistics and manufacturing (eg food processing) centre and be integrated into the overall airport campus project area.

Crucially we have also assumed a new 140mph HSR line is constructed along the North Kent Coast from Ebbsfleet, connecting the Medway Towns with the airport and Ramsgate — a distance of approximately 40 miles. The aspiration is this line would be completed between 2025-30, would allow easy access to the terminal at the Airport (as at Southend), and would be designed primarily for High Speed Javelin style services.

It is envisaged that this new line would allow 4tph to be diverted from the Ebbsfleet to Ashford section of HS1, thereby freeing up pathways for through running services from the UK regions using HS2 to connect via the existing chord north of St Pancras to HS1 and thence to Europe. A further 4tph could be the new (or upgraded) North Kent Corridor with a terminus either at Ebbsfleet for connections to Crossrail or by switching at Rochester onto the Victoria bound line rather than running through the Stroud Tunnel thereby linking Bromley and Swanley directly with the airport.

These arrangements would have the huge advantage of delivering competitive journey times to the Airport (with the fastest services aiming for 40-45 minutes), not just from Central London but also Ebbsfleet, Stratford and key Kent and South East London commuter towns, which otherwise do not have direct non-stop access to an airport and requiring passengers to interchange in London.

We have not attempted to plan the route of this link in detail or to cost it – although if the benchmark of £10m/km is used and allowances are made for connections at Ebbsfleet, enhanced bridging/tunnelling in the Rochester/Stroud corridor and a significant parkway station and associated road improvements at the Airport a figure of £1.0bn appears plausible. In the context of a development plan inside the boundary fence which would cost less than £1bn but deliver up to 20mppa additional capacity – the equivalent in capacity terms of a close parallel runway at one of the other major London airports – we think it would offer excellent value for



money on a cost/unit of incremental capacity basis. It is also likely to be the lowest surface access related cost for a capacity increment of this size at any of the other South East airport, all of which would require at least as great or greater investment in new or enhanced road and rail links.

7. Strategic Impacts

As we indicated at the outset, we have not had the time or resource to undertake a detailed appraisal of these impacts. What follows, therefore, is of necessity indicative and is perhaps an area, where based on discussions with the Commission and our existing (or new) owners, we could look to add further explanation and assessment if it was considered necessary.

With this caveat in mind, we have sought to provide a high level commentary in Table 7 on the impacts and issues we might expect if these proposals were to be brought forward, based around the sift criteria headings in your Guidance Note No.2.

Table 7: Strategic Impacts of the Manston Proposals

 Available for immediate development. Capable of responding quickly if the right policy signals and pricin incentives (e.g. differential APD, air cargo TDRs) are offered. Supports improved connectivity for London indirectly allowing some demand for point-point/leisure destinations to be re-directed and met locally, freeing capacity at from LHR and LGW for long haul and interlining traffic. 	by
 Complements most single hub/single runway options the South East but not a new hub airport in the Thame Estuary or at Stansted or a dispersed airport developmendel. An early (i.e. pre 2035) Gatwick runway could potentially undermine the development of critical mam Manston. Thames Estuary Corridor is the area of London and the South East least well served in terms of access to a mairport and a wide range of air services – developing Manston improves balance of capacity available in the South East and particularly in Kent. Designating Manston now as the long term dedicated cargo airport for the South East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only to the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will only the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will not the south East will prevent nugatory investment elsewhere (e.g. Stansted) which will not the south East will not the	in es nent ss at e ajor
lost as slots are allocated to more valuable passenger flights as those airports fill up.	



	1
Connectivity:	 Manston potentially offers a very effective 'resilience valve' outside the London TMA for the principal airports. The 'reliever airport' concept is well established in other leading World Cities in Europe and North America – it can work well for London too. However it requires some structure policy to facilitate it in a way that market forces simply will not deliver. Creates opportunity for a step change enhancement in
Connectivity.	 connectivity not only to other parts of the UK and internationally to businesses and residents in East Kent, but also if the new rail connection is built, to London. The new railway line and Airport Parkway would also improve accessibility to Discovery Park (Enterprise Zone) and to the proposed Universal Studios development on the Swanscombe Peninsula.
	 Provides local and convenient air access to a range of domestic and short haul European hub and leisure destinations within the Manston catchment area. Offers a choice between making the long journey to a hub at Heathrow or another London Airport and accessing a European hub easily for convenient connecting flights.
	 Reduces the need for long surface journeys to congested airports 1.5hrs away, which of necessity are mostly accessed by car requiring very early departures for morning flight because of road congestion en route. Offers long term guaranteed logistical capability for dedicated air cargo in the South East with improve onward journey times to the South Coast and the central and southern parts of London compared to East Midlands. Provides low cost entry point for inbound leisure traffic,
	low cost long haul services and secondary and tertiary carriers from Africa and Asia who cannot secure access to LHR or LGW.
Economy:	 Potential to create significant direct, indirect and induced employment benefitting one of the most deprived parts of the South East. At 15mppa direct job creation associated with the passenger airport would be c10,000; cargo and maintenance would be 2-3000 if built out and the Airport Campus a similar number. This equates to 15,000 directly airport related new jobs in one of the most deprived areas of the South East and a huge long term fillet to the economy of Thanet, East Kent and the wider Thames Estuary Corridor. The Academy in the Airport Campus would offer job



•	
	 specific training for all the businesses in the Airport cluster, but also training for Kent school leavers and job seekers that will be in great demand elsewhere in the South East or indeed overseas. It creates a 'beacon' or 'gateway' location to act as a focal point for attracting logistics and other aviation dependent businesses that complements the nearby Discovery Park scheme. Opportunity to secure significant private investment, attract inward investment and improve access global markets for local companies. Make Kent's tourism offer far more easily accessible to a wider UK and international audience.
Surface Access	Journey times by rail to Manston from London Termini, Outer London Interchanges (eg Bromley South, Stratford International) and major Kent Stations (eg Tonbridge, Ashford, Ebbsfleet) will initially be improved incrementally and then with the proposed new fast rail corridor materially. Travel time to London of 40-45 mins by rail would be better than Stansted and Luton today and competitive with Gatwick.
	 There would be enhanced capacity and service quality for commuters particularly in the Medway Towns if the new North Kent HSR link is built. The new rail link could offer a convenient connection north of the Thames if such were to be included in the
	new Thames Crossing, and via Crossrail at Ebbsfleet to Heathrow.
	 Improving access from the main Minster roundabout into the airport terminal area would be beneficial in terms of taking airport traffic away from the local road network north of the runway.
	 Manston offers direct dual carriageway access for onward shipment of air cargo by truck to London and the wider South East and via the nearby ferry ports and Channel Tunnel to the European motorway network.
Environment:	 Proposals will remains within established noise controls – night-time operations will be available. But the Airport would look to establish a 'noise package' consistent with enhanced capacity, and in line with Guidance in the Aviation Policy Framework with local residents and those under the flight-path in Ramsgate.
	Reduces pressure for more environmentally damaging development at other airports elsewhere. Reduces surface travel required to access air services across Kent



	and the remainder of Manston's floating and extended
	catchment areas.
People:	Enhances the quantum and range of employment available locally.
	Improves the availability of opportunities and
	apprenticeships for local school leavers.
	• Enhances the opportunity for travel/holidays within the Airport's catchment area.
	 Improves access, particularly for foreign students at Kent
	tertiary education facilities and migrant/weekly
	commuters looking to travel home for VFR trips.
Cost	 Only cost to Government would be in improving surface access infrastructure. This is anticipated, even with the new rail link to be less than at other airports. The capacity/cost ratio is expected to be better at
	Manston than at any other airport as the configuration of the airport and its present uncongested condition makes it easy to build at.
	 Development can be incremental and delivered extremely quickly. Larger increments elsewhere will take much longer.
Operational	 Capable of taking A380 and B787s and most cargo aircraft
Viability	on long sectors
	 New £2m radar investment allows much more intensive use of the infrastructure.
	 As it lies outside the London TMA less subject to delays.
	 Offers resilience capability to larger airports, potentially allowing them to schedule more intensive use in the knowledge that there is a relatively convenient contingency capability in place.
	Currently makes a loss but would breakeven at around
	750k WLUs (Work Load Units - i.e. pax or 100kg of freight) and so assignment of 'reliever' status would help underwrite the long term commercial sustainability of the airport
Delivery	Strong support within Kent for development of the airport.
	 New capacity capable of being brought on line quickly.
	 Plenty of space to develop to 10mppa and well beyond.
	 Strong policy framework from the Commission, in which
	airports reliever status was recognised will be essential to
	securing the long-term investment commitment that is needed.



8. Concluding Remarks

This submission has sought to explain the substantial contribution, both direct and indirect that Manston Airport could make to the functioning of the South East airport system in the medium to long term, by:

- Adding capacity in the form of a 'reliever' airport facility
- Freeing up capacity at the more congested airports allowing them to make more optimal use of the capacity they already have available, and by
- Reducing the scale of new runway capacity that may need to be built elsewhere
 and so mitigating some of the much more substantive impacts associated with
 development at one of the other larger London airports

Our proposals are based on a detailed examination of the underlying pattern of demand south and east of London within Manston's existing and potential catchment areas, nature of traffic using the larger more congested airports in the region and the extent of the capacity shortfall that can be expected between 2025-30. With this in mind, we have identified a significant opportunity for Manston to fulfill a strategic niche as a medium sized reliever passenger airport and the dedicated cargo airport for the whole region.

We have highlighted that delivery of this vision can be privately funded, but only if there is Government policy intervention in the form of fiscal and regulatory frameworks that will be revenue neutral and won't materially disadvantage competitor airports. It will also require new surface infrastructure investment, but at modest cost in the context of the price likely to be associated with other proposals that will be submitted to the Commission.

Finally, we have provided a high level assessment of the potential strategic impacts of the Manston proposals and shown how they potentially connect to other strategic projects in Kent. While we are convinced there is scope to radically change the economic prospects and connectivity Manston can offer the population of its natural catchment area in Kent and South East London, we are anxious to ensure that the contribution of secondary airports like ours, and the relative cost of providing that enhanced connectivity, are examined alongside large proposals when future capacity options in the South East are appraised.

I trust the forgoing provides the information you are seeking and is of interest to the Commission - we certainly believe that this amounts to a substantive case for Manston that merits the Commissions' detailed consideration. If you need anything further or would like to discuss some aspect of the proposals please do not hesitate to contact me.



Contact Information

Contact points for any questions about these proposals and the analysis which supports them should be directed to me in the first instance on the contact details incorporated within the letter covering this submission.

In my absence, or if the query is of a detailed technical nature, please contact my principal advisor on the proposals - Chris Cain, Principal of the ASAP consultancy, who is based in Kings Hill in Kent and contactable as follows:

Aviation Strategy and Policy Consultancy





Appendix A:

LCY

ATM's

Ave A/c pax

L & SE Capacity Shortfall

DfT Central Forecasts for the Principal South East Airports under Max Use

Max Use (Central Forecast) 2011 2020 2030 2040 2050 **Airport Actual** 75 LHR 69 82 87 93 ATM's 480,000 480,000 480,000 480,000 480,000 Ave A/c pax 144 171 181 194 156 **LGW** 34 37 41 43 44 ATM's 270,000 275,000 280,000 280,000 280,000 Ave A/c pax 124 135 146 154 157 STN 18 25 36 36 35 241,000 250,000 259,000 259,000 259,000 ATM's 75 97 135 Ave A/c pax 139 139 LTN 14 10 18 19 18 ATM's 130,000 145,000 160,000 160,000 160,000 113 Ave A/c pax 73 88 113 119

DfT UK Terminal Passenger Forecasts 2011 & 2013 (mppa) at Principal UK Airports 2010 - 2050

- 7 - P -					
SEN	0	2	3	2	2
ATM's		26,500	53,000	53,000	53,000
Ave A/c pax	-	38	57	38	38
Total pax	133	158	186	193	199
Total UK Pax Unconstrained Demand (DfT 2011 Forecast) SE and London Proportional Share	133	167	210	258	321
CAGR		2.20%	2.20%	2.20%	2.20%

5

42

-9

96,500

6

50

-24

120,000

6

50

-65

120,000

58

-122

120,000

3

40

0

73,000



Appendix B

Forecast Journey Purpose and Sector – 2013 DfT Forecasts

Forecast Jour	ney Purpo	se and se	- ZU	13 011 101	Clasis		
DfT 2013 Forecast - Journey Purpose and Sector							
2010	Domestic		Short haul		Long haul		
Note Minor Reductions Due to Roundings in Original DfT Data	All	UK Leisure	Foreign Leisure	Business & Transfer	All	Total	
LHR	2	8	5	13	34	62	
LGW	2	14	5	4	6	31	
STN	1	8	5	4	0	18	
LTN	1	4	2	1	0	8	
LCY	0	1	1	0	0	2	
L&SE totals	6	35	18	22	40	121	
Market Share	21%	48%	67%	76%	83%	59%	
Rest of UK	22	38	9	7	8	84	
Market Share	79%	52%	33%	24%	17%	41%	
UK Total	28	73	27	29	48	205	
2030	Domestic		Short haul		Long haul		
Note Minor Reductions Due to Roundings in Original DfT Data	All	UK Leisure	Foreign Leisure	Business & Transfer	All	Total	
LHR	3	6	3	20	53	85	
LGW	2	18	6	6	7	39	
STN	4	15	8	6	0	33	
LTN	2	9	4	3	0	18	
LCY	1	2	1	2	0	6	
L&SE totals	12	50	22	37	60	181	
Market Share	24%	43%	56%	73%	77%	88%	
Rest of UK	39	65	17	14	18	153	
Market Share	76%	57%	44%	27%	23%	75%	
UK Total	51	115	39	51	78	205	
2050	Domestic		Short haul		Long haul		
Note Minor Reductions Due to Roundings in Original DfT Data	All	UK Leisure	Foreign Leisure	Business & Transfer	All	Total	
LHR	2	5	3	20	55	85	
LGW	4	19	7	4	8	42	
STN	5	14	8	3	0	30	
LTN	5	5	3	3	0	16	
LCY	0	3	1	3	0	7	
L&SE totals	16	46	22	33	63	180	
Market Share	21%	28%	39%	55%	58%	39%	



Rest of UK	60	121	34	27	45	287
Market Share	79%	72%	61%	45%	42%	61%
UK Total	76	167	56	60	108	467

Appendix C

Manston's Potential Contribution towards Meeting Traffic Shortfalls

Table C1: 2011 Max Use Forecast

DfT UK 2011 Terminal Passenger Forecasts (mppa) at Principal UK Airports 2010 - 2050 Max Use (Central Forecast)						
Airport	2011 Actual	2020	2030	2040	2050	
LHR	69	75	82	87	93	
LGW	34	37	41	43	44	
STN	18	25	36	36	35	
LTN	10	14	18	19	18	
LCY	3	5	6	6	7	
SEN	0	2	3	2	2	
Total Pax	133	158	186	193	199	
Total UK Pax Unconstrained Demand (DfT <u>2011</u> Forecast) SE and London Proportional Share	133	167	210	258	321	
CAGR		2.20%	2.20%	2.20%	2.20%	
L & SE Capacity Shortfall		-9	-24	-65	-122	
MSE	0	5	10	20	30	
Revised Shortfall		-4	-14	-45	-92	

Table C2: 2013 Max Use Forecast

DfT UK Terminal Passenger Forecasts 2011 & 2013 (mppa) at Principal UK Airports 2010 - 2050 Max Use (Central Forecast)								
Airport	2011 Actual 2020 2030 2040 2050							
LHR	69	75	82	87	93			
LGW	34	37	41	43	44			
STN	18	25	36	36	35			
LTN	10	14	18	19	18			
LCY	3	5	6	6	7			
SEN	0	2	3	2	2			
Total pax	133	158	186	193	199			
Total UK Pax Unconstrained								
Demand (DfT 2013 Forecast) SE and	133	158	194	237	295			
London Proportional Share								
CAGR		1.75%	2.10%	2.10%	2.20%			
L & SE Capacity Shortfall		0	-8	-44	-96			
MSE	0	3	8	15	25			
Revised Shortfall		3	0	-29	-71			
19 July 2013			-					

19 July 2013



Table YY3: 2011/13 Hybrid Forecast For New Runways at STN and LGW Table C3: New Runways at Stansted and Gatwick:

DfT UK Terminal Passenger Forecasts 2011 & 2013 (mppa) at Principal UK Airports 2010 - 2050							
Max Use (Central Forecast)							
Airport	2011 Actual	2020	2030	2040	2050		
LHR	69	75	82	87	93		
LGW (2 runway	34	37	57.4	68.8	79.2		
STN (2 runway)	18	25	43.2	54	61.2		
LTN	10	14	18	19	18		
LCY	3	5	6	6	7		
SEN	0	2	3	2	2		
Total Pax	133 💆	158	210	237	260		
Total UK Pax Unconstrained							
Demand (DfT 2011Forecast) SE and	133	167	210	258	321		
London Proportional Share							
CAGR		2.20%	2.20%	2.20%	2.20%		
L & SE Capacity Shortfall		-9	-0.4	-21.2	-60.6		
MSE	0	3	7.5	15	20		
Revised Shortfall		-6	7.1	-6.2	-40.6		



Appendix D

Manston's Potential Contribution towards Meeting Traffic Shortfalls

Figure D1: Current Use of land at the Airport

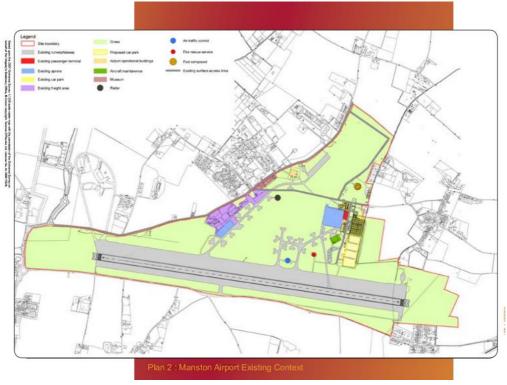


Figure D2: Airport Layout Plan for 3mppa



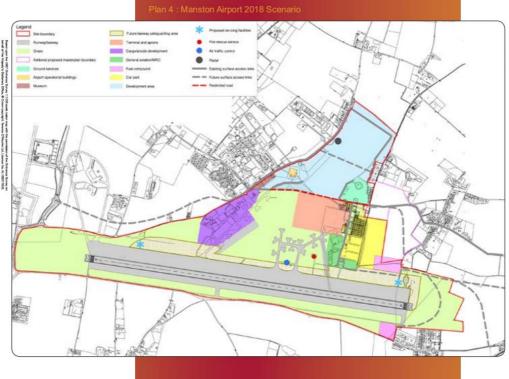


Figure D3: Airport Layout Plan for 6mppa

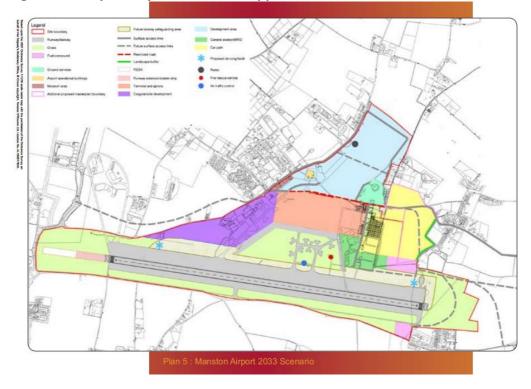


Figure D4: Terminal Development to 6mppa



Plan 6: Phasing of Terminal development

