

# RSP

RiverOak Strategic Partners

## 6.2 Consultation Report Appendices

TR020002/APP/6.2

**Project Name:** Manston Airport Development Consent Order  
**Regulation:** Regulation 5(2)(q) of the Infrastructure Planning  
(Applications: Prescribed Forms and Procedure)  
Regulations 2009, as amended, and Section 37(3)(c)  
and Section 37(7) of the Planning Act 2008  
**Date:** July 2018

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**

**CONSULTATION REPORT APPENDICES**

**DOCUMENT REFERENCE TR020002/APP/6.2**

<b>Appendix No.</b>	<b>Description</b>
Stage 1 Consultation (2016)	
1	Stage 1 Media Report
Stage 2 Consultation (2017)	
2	Copy of letter to PINS with Section 46 Notification dated 12 June 2017
3	Copy of letter received from PINS confirming receipt of Section 46 Notification dated 7 July 2017
4	Copy of covering letter to Section 42 consultees (and EIA prescribed consultees) enclosing consultation pack
5	Copy of Section 48 Notice
6	Consultation Feedback Form
7	Consultation Overview Report
8	Consultation Leaflet
9	Draft Masterplan for Manston Airport
10	Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth
11	Outline Business Case
12	2017 Statement of Community Consultation (Final)
13	Consultation Location Plan
14	Interim Consultation Report
15	List of Section 42 consultees (prescribed consultees, local authorities & PILs)
16	List of non-prescribed consultees (including community groups and elected representatives)

17	2017 Statement of Community Consultation (Consultation Draft)
18	Copy of email sent to local authorities and parish and town councils regarding draft SoCC
19	Copies of letters and emails received from local authorities and parish and town councils during consultation on the draft SoCC for Stage 2 Consultation
20	WSP Land Referencing Diligent Inquiry Methodology
21	Copy of s.47 SoCC Notice
22	Copy of s.47 SoCC Notice, as placed
23	Table of compliance with SoCC and supporting information
24	Log evidencing when deposited consultation materials were checked
25	Stage 2 Media Report
26	Copy of Electronic Feedback Form
27	Copy of letters sent to advertise additional consultation events
28	Copy of poster sent to parish councils to advertise additional consultation events
29	Copy of Section 48 notice, as placed
Stage 3 Consultation (2018)	
30	Copy of letter to PINS with Section 46 Notification
31	Copy of letter received from PINS confirming receipt of Section 46 Notification
32	Copy of letter to Section 42 consultees (and EIA prescribed consultees) enclosing consultation pack
33	Copy of combined Section 47 and Section 48 Notice
34	Consultation Feedback Form
35	Introduction to the Consultation
36	Draft Masterplan for Manston Airport
37	Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth
38	NOT USED

39	Preliminary Environmental Information Report Non-Technical Summary 2018
40	2018 Statement of Community Consultation (Final)
41	Draft Noise Mitigation Plan
42	List of Section 42 consultees (prescribed consultees local authorities & PILs)
43	List of non-prescribed consultees (including community groups and elected representatives)
44	2018 Statement of Community Consultation (Consultation Draft)
45	Copy of email sent to local authorities and parish and town councils regarding draft SoCC
46	Copies of letters and emails received from local authorities and parish and town councils during consultation on the draft SoCC for Stage 3 Consultation
47	Copy of combined s.47 and s.48 Notice, as placed
48	2018 Consultation Zone Map
49	Table of compliance with SoCC and supporting information
50	Maps of event attendees' postcodes showing spread of locations of attendees
51	Copy of consultation postcard and distribution areas
52	Stage 3 Media Report
53	Copy of Electronic Feedback Form
54	Log evidencing when deposited consultation materials were checked
56	2017 Consultation zone map
57	2017- Copies of emails sent to those who expressed an interest in the Proposed Development
58	Template letters/emails to elected representatives, MPs, MEPs, councillors, local community groups and organisations
59	2017- Consultation event visual display
60	Copies of emails sent to those who previously expressed an interest in the Proposed Development

61	Template letters/emails to elected representatives, MPs, MEPs, councillors, local community groups and organisations
62	Visual displays at consultation events.
EIA Consultation	
55	Copy of the letter sent to PINS notifying them that RiverOak would provide an ES in respect of the Proposed Development

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**

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**Appendix 1**

**Stage 1 Media Report**

## Informal consultation events – dates and venues confirmed

Jun 30, 2016 | Uncategorized

RiverOak Investments will be holding a series of informal consultation events during July, ahead of the more formal consultation process later in the year, to enable the local community to find out more about the proposals for Manston Airport and the DCO process.

These events are informal drop-in sessions to allow members of the local community to call in at a convenient time. There will be no formal presentations but members of the team will be available to answer questions. Copies of an information document about the proposals will be available to take away. However copies will also be available to download from this website from 12 July.

The dates and locations of the events currently confirmed are as follows:

### Broadstairs

**Tuesday 12 July 2016**

Broadstairs Pavilion  
Harbour Street  
Broadstairs CT10 1EU  
14.00-20.00

### Margate

**Wednesday 13 July**

Marine Drive  
Margate  
CT9 1DH

### Herne Bay

**Monday 18 July 2016**

The King's Hall  
Beacon Hill  
Herne Bay CT6 6BA  
14.00-20.00

### Canterbury

**Thursday 21 July 2016**

Canterbury Cathedral Lodge  
The Precincts  
Canterbury CT1 2EH  
14.00-20.00

### Sandwich

**Friday 22 July 2016**

The Guildhall  
Sandwich CT13 9AP  
14.00-20.00

### Ramsgate

**Saturday 23 July 2016**

The Comfort Inn  
Victoria Parade  
Ramsgate CT11 8DT  
10.00-16.00

### Latest Tweets

Plans coming together for our informal #manston consultation events at end of July. Dates/times to be advertised once everything confirmed.

June 3, 2016 6:26 pm

Supportive words on #Manston's future by@CatherineShoard gu.com/p/4jaae/stw

May 18, 2016 2:13 pm

An excellent SMA letter in today's @Telegraph signed by more than 750 active supporters: www.telegraph.co.uk/opinion/20...

April 16, 2016 9:52 am

Get in touch



<b>Business name:</b>	Wordsmith Communication
<b>Campaign dates:</b>	9 <sup>th</sup> – 16 <sup>th</sup> July

**Desktop advert:**

**Localworld Advertising**

Sponsored · 🌐

👍 Like Page

Our vision is to revive Manston Airport and bring it to national significance. [Click here to learn more.](#)

**Our Plan For Manston**

Join us for our information events, from 14:00-20:00 at the Guildhall, Sandwich on July 22nd or from 10:00-16:00 at the Comfort Inn, Victoria Parade, Ramsgate on July 23rd.

[WWW.RIVEROAKINVESTMENTS.CO.UK](http://WWW.RIVEROAKINVESTMENTS.CO.UK)

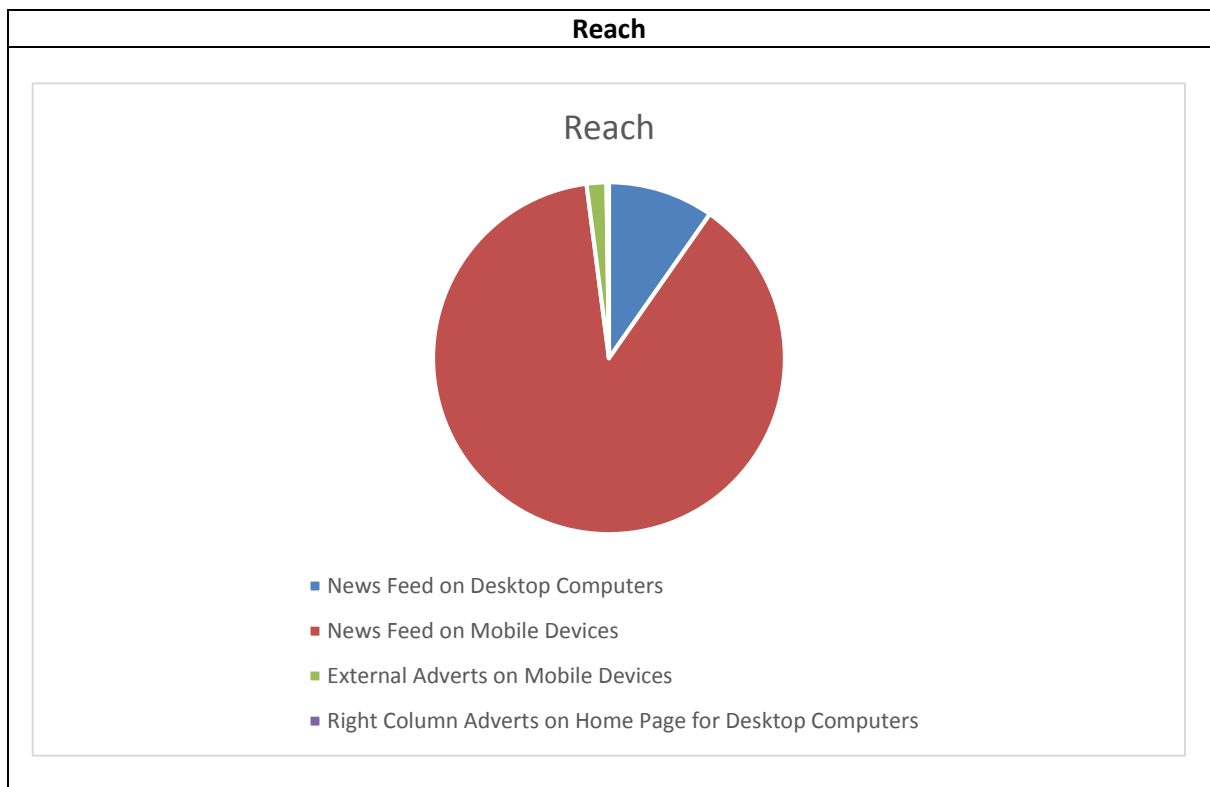
Learn More

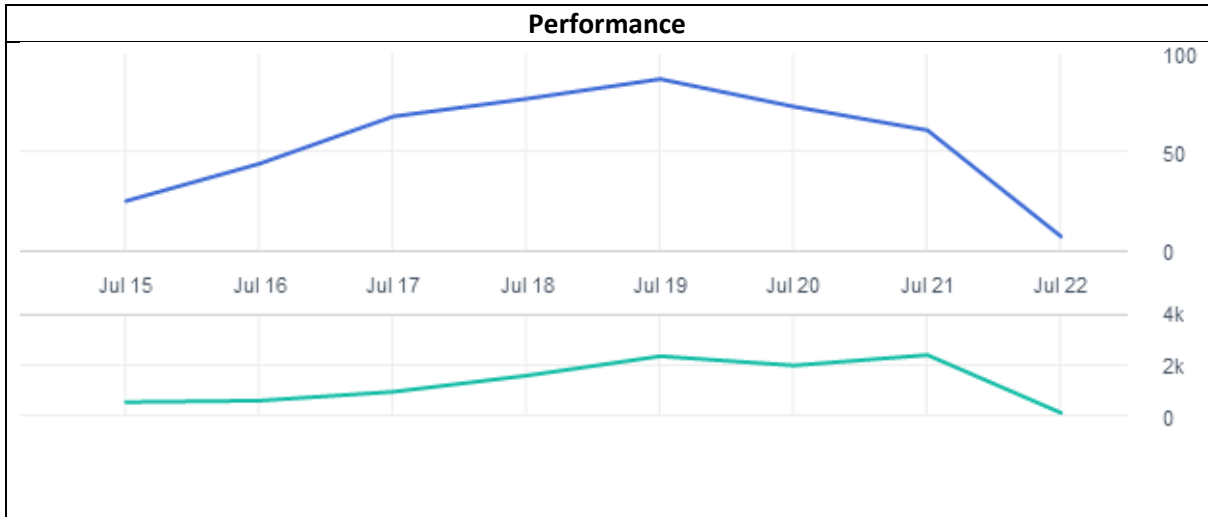
49 Likes · 9 Comments · 16 Shares

👍 Like
💬 Comment
➦ Share



Results			
Placement	Reach	Frequency	Impressions
News Feed on Desktop Computers	780	1.29	1,004
News Feed on Mobile Devices	7,078	1.35	9,536
External Adverts on Mobile Devices	146	1.18	173
Right Column Adverts on Home Page for Desktop Computers	18	1.72	31
<b>Total Reach:</b>	<b>7,918</b>	<b>Total Impressions</b>	<b>10,744</b>
<b>Total Number of Clicks:</b>	<b>655</b>	<b>Click Through Rate:</b>	<b>6.10%</b>





- 'External Adverts on Mobile Devices' are Ads on Partner Mobile Apps (your ad will be shown in partner mobile apps that are part of Facebook's Audience Network)
- 'Right Column Adverts on Desktop Computers' are ads which show on the right hand side of Facebook whilst browsing
- 'Right Column Adverts on Home Page for Desktop Computers' are ads which show up on the right hands side of Facebook when a user is on his/her homepage (the feed you see when you click on the top left side)



<b>Business name:</b>	Manston Airport
<b>Campaign dates:</b>	10 <sup>th</sup> – 18 <sup>th</sup> July

**Desktop advert:**

**Localworld Advertising**

Sponsored ·

Like Page

Our vision is to revive Manston Airport and bring it to national significance. [Click here to learn more.](#)

### Our Plan For Manston

Join us for our information events, from 14:00-20:00 at The King's Hall, Beacon Hill, Herne Bay on July 18th and Canterbury Cathedral Lodge, The Precincts, Canterbury on July 21st.

[WWW.RIVEROAKINVESTMENTS.CO.UK](http://WWW.RIVEROAKINVESTMENTS.CO.UK)

Learn More

22 Likes 7 Comments 3 Shares

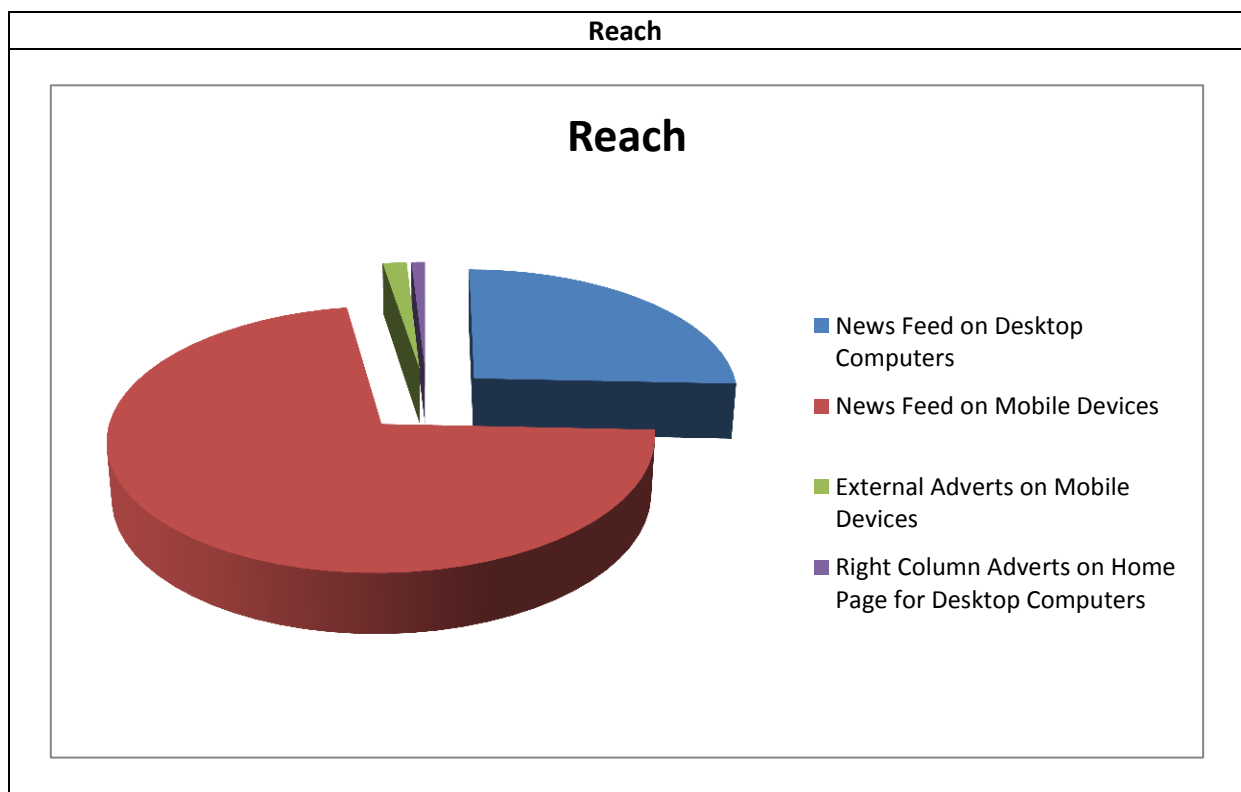
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Like

Comment

Share

Results			
Placement	Reach	Frequency	Impressions
News Feed on Desktop Computers	1374	1.35	1852
News Feed on Mobile Devices	3838	1.26	4839
External Adverts on Mobile Devices	88	1.11	98
Right Column Adverts on Home Page for Desktop Computers	50	1.04	52
<b>Total Reach:</b>	5246	<b>Total Impressions</b>	6841
<b>Total Number of Clicks:</b>	606	<b>Click Through Rate:</b>	8.86



- 'External Adverts on Mobile Devices' are Ads on Partner Mobile Apps (your ad will be shown in partner mobile apps that are part of Facebook's Audience Network)
- 'Right Column Adverts on Desktop Computers' are ads which show on the right hand side of Facebook whilst browsing
- 'Right Column Adverts on Home Page for Desktop Computers' are ads which show up on the right hands side of Facebook when a user is on his/her homepage (the feed you see when you click on the top left side)

# Manston Airport

## Kent's international freight and passenger airport.

Our vision is to revive Manston Airport as a successful hub for international air freight, of national significance to the UK, which also offers passenger, executive travel and aircraft engineering services.

As part of our preparation to submit an application to the Planning Inspectorate for a Development Consent Order, RiverOak Investments is holding a series of informal consultation and information events to enable the local community to find out more about our proposals for Manston Airport.

You can visit these events at the following locations and times:

Venue	Date	Time
Broadstairs - Pavilion, Harbour Street, Broadstairs CT10 1EU	Tuesday 12 July	14.00 -20.00
Margate - Sands Hotel, 16 Marine Drive, Margate CT9 1DH	Wednesday 13 July	14.00 -20.00
Herne Bay - The King's Hall Beacon Hill, Herne Bay CT6 6BA	Monday 18 July	14.00 -20.00
Canterbury - Canterbury Cathedral Lodge, The Precincts, Canterbury CT1 2EH	Thursday 21 July	14.00 -20.00
Sandwich - The Guildhall, Sandwich CT13 9AP	Friday 22 July	14.00 -20.00
Ramsgate - Comfort Inn, Victoria Parade, Ramsgate CT11 8DT	Saturday 23 July	10.00 -16.00

To find out more about the events and about our proposals for Manston please visit: [www.riveroakinvestments.co.uk](http://www.riveroakinvestments.co.uk)



**RIVER OAK**  
INVESTMENT CORP., LLC



**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**  
**CONSULTATION REPORT APPENDICES**  
**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 2**

**Copy of letter to PINS with Section 46 Notification dated 12 June 2017**



PO Box 3297,  
Bristol, BS1 9LL  
**T** + 44 (0)800 030 4137  
**E** manston@communityrelations.co.uk  
**W** www.rsp.co.uk

The Rt Hon Chris Grayling MP  
The Secretary of State for Transport  
c/o The Planning Inspectorate  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

12 June 2017

**RiverOak Strategic Partners Limited ('RiverOak')**  
**Planning Act 2008, Section 46 Notification**  
**Proposed Manston Airport Development Consent Order**

I write to provide the Secretary of State with notification for the purposes of section 46 of the Planning Act 2008 ('the Act') that RiverOak proposes to commence consultation pursuant to section 42 of the Act in regard to its proposed application for the Manston Airport Development Consent Order ('Manston Airport DCO'). The consultation will begin on Monday 12 June 2017 and the deadline for receiving responses is Sunday 23 July 2017.

As you are already aware, RiverOak proposes to apply to the Secretary of State under section 37 of the Act for Manston Airport DCO. The application will be for the redevelopment and reopening of Manston Airport as a hub for international air freight which also offers passenger, executive travel and aircraft engineering services.

The airport would include the ability to handle at least 10,000 air freight movements per year, which means the Project is classified as a 'Nationally Significant Infrastructure Project' by the Act.

In accordance with section 46 of the Act, RiverOak hereby supplies the Secretary of State with the same information that is being supplied to all relevant consultees identified in accordance with section 42 of the Act, and encloses with this letter the following documents:



In hard copy:

- A Feedback Form, which can be used to respond to the consultation.
- An Overview Report, which sets out more detail about the proposals and provides a non-technical summary of our preliminary environmental information.
- A copy of RiverOak's notice under section 48 of the Act (which we are required to include in our consultation material).

In electronic copy:

- A Consultation Leaflet
- A Preliminary Environmental Information Report
- A draft Masterplan for Manston Airport
- A report entitled 'Manston Airport – a Regional and National Asset'
- An Outline Business Case
- A Statement of Community Consultation
- A Location Plan
- An Interim Consultation Report

We have also included with this letter an example of a letter sent to statutory consultees who are being consulted under section 42 of the Act.

All of the consultation documents will also be made available on our website at [www.rsp.co.uk](http://www.rsp.co.uk) from 12 June 2017.

Following the receipt and consideration of responses to the consultation carried out in accordance with sections 42 and 47 of the Act it is expected that the Manston Airport DCO application will be submitted to the Secretary of State later in 2017.

In the meantime, should you have any further questions please do not hesitate to contact me on the details provided below.

Your sincerely,

**George Yerrall**  
**Director**

**RiverOak Strategic Partners**

T: 0800 030 4137

E: [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk)

W: [www.rsp.co.uk](http://www.rsp.co.uk)

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**

**CONSULTATION REPORT APPENDICES**

**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 3**

**Copy of letter received from PINS confirming receipt of Section 46 Notification dated 7 July 2017**



3/18 Eagle Wing  
Temple Quay House  
2 The Square  
Bristol, BS1 6PN

Customer Services: 0303 444 5000  
e-mail: [nienquiries@pins.gsi.gov.uk](mailto:nienquiries@pins.gsi.gov.uk)

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Mr George Yerrall  
RiverOak Strategic Partners Limited  
PO Box 3297  
Bristol  
BS1 9LL

Your Ref:

Our Ref: TR020002

Date: 07 July 2017

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Dear Mr Yerrall

**Planning Act 2008 (as amended) – Section 46 and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) – Regulation 6**

**Proposed application by RiverOak Strategic Partners Limited for an Order Granting Development Consent for the Manston Airport**

**Acknowledgement of receipt of information concerning proposed application**

Thank you for your letter received 15 June 2017 and the following documentation:

In paper copy:

- A Feedback Form
- An Overview Report, which provides a nontechnical summary of your preliminary environmental information
- A copy of RiverOak's notice under section 48 of the Act
- An example of a letter sent to statutory consultees who are being consulted under section 42 of the Act.

A USB stick containing:

- A Consultation Leaflet
- A Preliminary Environmental Information Report
- A draft Masterplan for Manston Airport
- A report entitled 'Manston Airport – a Regional and National Asset'
- An Outline Business Case
- A Statement of Community Consultation
- A Location Plan
- An Interim Consultation Report

I acknowledge that you have notified the Planning Inspectorate of the proposed

application for an order granting development consent for the purposes of section 46 of the PA2008 and supplied the information for consultation under section 42. The following reference number has been given to the proposed application, which I would be grateful if you would use in subsequent communications:

**TR020002**

I also acknowledge notification in accordance with Regulation 6 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) that you propose to provide an environmental statement in respect of the proposed development .

I will be your point of contact for this application – my contact details are at the end of this letter.

The role of the Planning Inspectorate in the application process is to provide independent and impartial advice about the procedures involved and to have open discussions with potential applicants, statutory bodies and others about the processes and requirements of the regime. It is important that you keep us accurately informed of your timetable and any changes that occur.

We will publish advice we give to you or other interested parties on our website and, if relevant, direct parties to you as the applicant. We are happy to meet at key milestones and/or provide advice as the case progresses through the pre-application stage.

Once you have prepared draft documents we are able to provide technical advice, in particular on the draft development consent order, explanatory memorandum, the consultation report and any draft HRA. You may therefore wish to build this into your timetables.

In the meantime, you may wish to have regard to the guidance and legislation material provided on our website including the Infrastructure Planning (Fees) Regulations 2010 (as amended) and associated guidance, which you will need to observe closely in establishing the correct fee to be submitted at the successive stages of the application process.

When seeking to meet your pre-application obligations you should also be aware of your obligation under the Data Protection Act 1998 to process personal data fairly and lawfully.

If you have any further queries, please do not hesitate to contact me.

Yours sincerely

*Richard Price*

**Richard Price**  
**Case Manager**

0303 444 5000

Email: richard.price@pins.gsi.gov.uk

Advice may be given about applying for an order granting development consent or making representations about an application (or a proposed application). This communication does not however constitute legal advice upon which you can rely and you should obtain your own legal advice and professional advice as required.

A record of the advice which is provided will be recorded on the National Infrastructure Planning website together with the name of the person or organisation who asked for the advice. The privacy of any other personal information will be protected in accordance with our Information Charter which you should view before sending information to the Planning Inspectorate.



**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**

**CONSULTATION REPORT APPENDICES**

**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 4**

**Copy of covering letter to Section 42 consultees (and EIA prescribed consultees) enclosing consultation pack**



RiverOak Strategic Partners Ltd

Audley House  
9 North Audley Street  
Mayfair, London  
W1K 6WF  
**T** + 44 (0) 800 030 4137  
**E** manston@communityrelations.co.uk  
**W** www.rsp.co.uk

[Name]  
[Title]  
[Organisation]  
[Address 1]  
[Address 2]  
[Address 3]  
[Address 4]  
[Address 5]  
[Post code]

9 June 2017

### **Reopening Manston Airport – 2017 Consultation**

RiverOak Strategic Partners Limited ('RiverOak') is proposing to redevelop and reopen Manston Airport as a hub for international air freight which also offers passenger, executive travel and aircraft engineering services.

The airport would include the ability to handle at least 10,000 air freight movements per year, which means the Project is classified as a 'Nationally Significant Infrastructure Project' by the Planning Act 2008 ('the Act'). As a Nationally Significant Infrastructure Project, we must make an application under the Act for a permission known as a 'Development Consent Order' to construct and operate Manston Airport. The application will be submitted to the Planning Inspectorate which will examine it and make a recommendation to the Secretary of State for Transport, who will then make a decision on whether the Project is granted consent. We expect a decision in late 2018 or early 2019.

RiverOak is required by the Act (under section 42) to consult people and organisations about our proposals for Manston Airport. You are receiving this letter because we believe you fall into one of the categories of people or organisations that we need to consult before submitting an application.

Consultation on our proposals starts on Monday 12 June 2017. The deadline for receiving responses to the consultation is Sunday 23 July 2017.

Feedback received during the consultation will be considered alongside on-going technical work, and used to help develop our final proposals before we submit our application later in the year.





RiverOak Strategic Partners Ltd

Audley House  
9 North Audley Street  
Mayfair, London  
W1K 6WF  
**T** + 44 (0) 800 030 4137  
**E** [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk)  
**W** [www.rsp.co.uk](http://www.rsp.co.uk)

Included with this letter is:

- A Feedback Form which you can use to respond to the consultation.
- An Overview Report, which sets out more detail about the proposals and provides a non-technical summary of our preliminary environmental information.
- A copy of RiverOak's notice under section 48 of the Act (which we are required to include in our consultation material).
- A digital storage device containing all our consultation documents.

More information about the project is available at [www.rsp.co.uk](http://www.rsp.co.uk).

Yours sincerely,

**George Yerrall, Director**  
**RiverOak Strategic Partners Limited**

T: 0800 030 4137

E: [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk)

W: [www.rsp.co.uk](http://www.rsp.co.uk)

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**  
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**Appendix 5**

**Copy of Section 48 Notice**

## Regulation 4, Infrastructure Planning (Applications: Prescribed Forms And Procedure) Regulations 2009 Notice Publicising A Proposed Application For A Development Consent Order

**Notice is hereby given that RiverOak Strategic Partners Limited ("RSP") of 50 Broadway, London, SW1H 0BL proposes to make an application (the "proposed application") to the Secretary of State for Transport under Section 37 of the Planning Act 2008 for development consent to authorise the reopening of Manston Airport in Kent.**

The Manston Airport site, which comprises approximately 296 hectares (732 acres), first operated as an RAF base in 1916 and most recently operated as a passenger airport until it was closed in May 2014. RSP is proposing to redevelop and reopen the site as a hub for international air freight which also offers passenger, executive travel and aircraft engineering services.

**The proposals include both the use of the existing airport infrastructure and the introduction of new facilities.**

**In summary, our proposals include:**

- upgrading the runway and improving the Alpha parallel taxiway; - constructing 19 new air cargo stands;
- completely re-fitting the airfield navigation aids; - refurbishing or replacing the existing fire station and constructing a new fire training area;
- building new air cargo facilities; - developing a new air traffic control service, demolishing the current Air Traffic Control tower;
- building new aircraft maintenance hangars and developing areas of the 'Northern Grass' for airport related businesses; and
- highway improvement works to ensure improved access to and around Manston Airport, including a new, permanent, dedicated airport access on Spitfire Way which will help to reduce airport related traffic on the local road network.

The proposed project is an Environmental Impact Assessment development ("EIA development"), as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. This means that the proposed works constitute development for which Environmental Impact Assessment will be required. An Environment Statement will therefore be submitted as part of the proposed application containing information about the environmental effects of the proposed development. Preliminary environment information can be found in the Preliminary Environmental Information Report ("PEIR") which forms part of the consultation material.

**Details on the proposed application and copies of the consultation documents include:**

- a Consultation Leaflet; - a Feedback Form; - an Overview Report; - a Preliminary Environmental Information Report (PEIR);
- a draft Masterplan for Manston Airport; - Manston Airport - a Regional and National Asset, Volumes I-IV;
- an Outline Business Case; - a Statement of Community Consultation; - a Location Plan; and an Interim Consultation Report.

From **12 June to 23 July 2017** you can view and download the consultation documents on and from our project website at [www.rsp.co.uk](http://www.rsp.co.uk). Due to the size of the PEIR, it will only be available to review at Deal, Margate and Ramsgate libraries (as well as online and at the consultation events). The other libraries will include all other consultation documents, including the non-technical summary of the PEIR contained in the Overview Report. We will check on a weekly basis that the full suite of consultation documentation remains available and intact at each of these locations.

Venue	Opening hours
Note: All libraries can be contacted by telephone on 03000 41 31 31 and are closed on public holidays. Opening hours are correct at the time of publication.	
<b>Birchington Library</b> Alpha Road, Birchington CT7 9EG	Mon, Tue, Thu, Fri: 9am-6pm Sat: 10am-2pm, Wed, Sun: closed
<b>Broadstairs Library</b> The Broadway, Broadstairs CT10 2BS	Mon - Wed, Fri: 9am-6pm Thu: 9am-8pm, Sat: 9am-5pm, Sun: closed
<b>Cliftonville Library</b> Queen Elizabeth Avenue, Margate CT9 3JX	Mon, Tue, Thu, Fri: 9am-6pm, Sat: 10am-2pm, Wed, Sun: closed
<b>Deal Library</b> Broad Street, Deal CT14 6ER	Mon - Fri: 9am-6pm, Sat: 9am-5pm, Sun: 10am-4pm
<b>Herne Bay Library</b> 124 High Street, Herne Bay CT6 5JY	Mon - Fri: 9am-6pm, Sat: 9am-5pm, Sun: closed
<b>Margate Library</b> Thanet Gateway Plus, Cecil Street, Margate CT9 1RE	Mon - Wed, Fri: 9am-6pm Thu: 9am-8pm, Sat: 9am-5pm, Sun: closed
<b>Minster-in-Thamet Library</b> 4A Monkton Road, Minster, Ramsgate CT12 4EA	Mon: 2pm-6pm, Tue, Thu: 9am-1pm and 2pm-6pm, Fri: 9am-6pm, Sat: 10am-2pm, Wed, Sun: closed
<b>Newington Library</b> Marlowe Academy, Marlowe Way, Ramsgate CT12 6NB	Mon, Tue, Thu, Fri: 9am-6pm, Sat: 10am-2pm, Wed, Sun: closed
<b>Ramsgate Library</b> Guildford Lawn, Ramsgate CT11 9AY	Mon - Fri: 9am-6pm, Sat: 9am-5pm, Sun: closed
<b>Sandwich Library</b> 13 Market Street, Sandwich CT13 9DA	Mon, Tue, Thu, Fri: 9am-6pm, Sat: 10am-2pm, Wed, Sun: closed
<b>Westgate Library</b> Minster Road, Westgate-On-Sea CT8 8BP	Mon, Wed: 9am-5pm, Tue, Fri: 9am-6pm, Sat: 10am-2pm, Thu, Sun: closed

**Copies of the consultation documents will also be available to view at our consultation events:**

<b>Herne Bay</b> The King's Hall, Beacon Hill, Herne Bay, CT6 6BA	Wed 14 June: 2pm - 8pm
<b>Broadstairs</b> The Pavilion, Harbour Street, Broadstairs, CT10 1EU	Thu 15 June: 2pm - 8pm
<b>Cliffsend</b> Cliffsend Village Hall Foads Lane, Cliffsend, CT12 5JH	Fri 16 June: 2pm - 8pm
<b>Margate</b> The Sands Hotel, 16 Marine Drive, Margate, CT9 1DH	Sat 17 June: 10am - 2pm
<b>Sandwich</b> The Guildhall, Sandwich, CT13 9AP	Tue 20 June: 2pm - 8pm
<b>Canterbury</b> ABode Canterbury, 30-33 High St, Canterbury, CT1 2RX	Thu 22 June: 2pm - 8pm
<b>Ramsgate</b> Comfort Inn, Victoria Parade, Ramsgate, CT11 8DT	Sat 24 June: 10am - 2pm

One copy of each of the consultation documents will be made available, free of charge, to those unable to access them via the internet or the deposit locations, with the exception of the PEIR. These are available from RSP by emailing [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk) or by phoning 0800 030 4137 during weekdays between 9am and 5pm. A hard copy of the PEIR can be provided but this will incur a charge of up to £500 for printing and delivery. A USB copy of all consultation documents including the PEIR can also be provided free of charge.

**Comments on the proposals can be made:**

- by post: Feedback Forms and any other consultation responses can be posted to PO Box 3297, Bristol, BS1 9LL
- online: a copy of the Feedback Form is available to fill in at our project website
- by email: consultation responses can be emailed to [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk)
- at the consultation events: Feedback Forms will be available at the consultation events and can be left at the event or returned by post to the address stated above

**Comments must be received no later than 11.59pm on the last day of the consultation on 23 July 2017.**

RSP requests that responses state the ground of representation, the nature of your interest in the proposed project, indicate who is making it and provide an address to which any correspondence relating to the representation may be sent.

Your comments will be analysed by RSP and used in connection with the consultation process, to inform further development of the project and in connection with the subsequent DCO application.

Personal information that is supplied to RiverOak in response to this consultation will be treated confidentially and processed and handled in accordance with the Data Protection Act 1998. The information may be disclosed to or shared with RiverOak's agents, contractors and advisors who provide services to RiverOak. This will allow us to fully consider the responses and use them in the preparation of application materials. Upon submission of our application for development consent under the Act or in connection with our application for any consents or licences from the Civil Aviation Authority, the Secretary of State or the Civil Aviation Authority may require RiverOak to supply copies of all consultation responses received. If a request is made, RiverOak is under a legal obligation to supply copies of the response to the Secretary of State. By submitting a consultation response to RiverOak, a respondent agrees that we may supply a copy of their response to the Secretary of State via the Planning Inspectorate if required to do so, or to the Civil Aviation Authority if requested.

If you have any questions about this consultation please contact the project team by using the email address, postal address or phone number listed above.



**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**

**CONSULTATION REPORT APPENDICES**

**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 6**

**Consultation Feedback Form**



RiverOak Strategic Partners

# Manston Airport Feedback Form – 2017 Consultation

RiverOak Strategic Partners

RiverOak Strategic Partners ('RiverOak') is proposing to reopen Manston Airport in Kent, primarily as a cargo airport ('the Project').

The proposals will help meet a growing demand for air freight in the UK, support the regional economy and protect the Airport's unique heritage.

## How to respond to the consultation

There are various ways that you can respond to this consultation. All consultation responses must be received by 11.59pm on the last day of the consultation, 23 July 2017, or we may not be able to take them into account.

- **By post:** this Feedback Form and any other consultation responses can be posted to PO Box 3297, Bristol, BS1 9LL;
- **Online:** A copy of this Feedback Form is available to fill in at our consultation website [www.rsp.co.uk](http://www.rsp.co.uk);
- **By email:** Consultation responses can be emailed to [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk); and
- **At the consultation events:** Feedback Forms will be available at the consultation events and can be left at the event or returned by post.

## RiverOak is carrying out consultation between 12 June and 23 July 2017.

The Airport will include the ability to handle at least 10,000 air freight movements per year, which means the project is classified as a Nationally Significant Infrastructure Project by the Planning Act 2008. As a Nationally Significant Infrastructure Project, we must make an application under the Planning Act 2008 for a permission known as a 'Development Consent Order' ('DCO') to construct and operate Manston Airport. The application will be submitted to the Planning Inspectorate which will examine it and make a recommendation to the Secretary of State for Transport, who will then make a decision on whether the Project can go ahead. This consultation will fulfil the requirements of sections 42 and 47 of the Planning Act 2008.

This consultation also forms part of RiverOak's initial engagement on the design of airspace and procedures associated with the airport. As such it is an opportunity for members of the community to highlight any factors which they believe RiverOak should take into account during that design phase. Having taken all such factors into account, the subsequent proposals for flightpaths and airspace will be subject to a separate round of consultation once the DCO application has been made.

## More information about the Project

Documents setting out details of the Project are available as part of the consultation. These include:

- an Overview Report giving a summary of the proposals including the potential benefits and impacts of the Project, how we propose to mitigate against potential impacts, and a non-technical summary of the Preliminary Environmental Information Report (PEIR);
- a PEIR; containing preliminary information on the likely environmental effects of our proposals as we have ascertained them so far, including noise, transport and air quality, and how we propose to minimise these effects, as well as how we propose to maximise the benefits of the Project;
- a draft Masterplan for Manston Airport; Manston Airport - a Regional and National Asset, Volumes I-IV;
- an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth;
- an Outline Business Case;
- this Statement of Community Consultation;
- a Location Plan; and
- an Interim Consultation Report, setting out the details of the first stage of consultation and how feedback received has been used to help develop the proposals.



## About you

Name: \_\_\_\_\_

Age:  18 - 24  25 - 34  35 - 44  45 - 54  55 - 64  65 +

Address: \_\_\_\_\_  
\_\_\_\_\_

Postcode: \_\_\_\_\_

Email address: \_\_\_\_\_

Are you providing feedback on behalf of an organisation?  Yes  No

If so, please let us know which one.

### Data protection

Personal information that is supplied to RiverOak in response to this consultation will be treated confidentially and processed and handled in accordance with the Data Protection Act 1998. The information may be disclosed to or shared with RiverOak connected companies, agents, contractors and advisors who provide services to RiverOak in connection with the preparation of an application for development consent under the Planning Act 2008. This will allow RiverOak to fully consider the responses and use them in the preparation of application materials. Upon submission of our application for development consent under the Planning Act 2008 or in connection with our application for any consents or licences from the Civil Aviation Authority, the Secretary of State or the Civil Aviation Authority may require RiverOak to supply copies of all consultation responses received. If a request is made, RiverOak is under a legal obligation to supply copies of the response to the Secretary of State. By submitting a consultation response to RiverOak, a respondent agrees that we may supply a copy of their response to the Secretary of State via the Planning Inspectorate if required to do so, or to the Civil Aviation Authority if requested.

## 2017 Consultation questions

Comments and feedback on any aspect of the Project or document published as part of the consultation are welcomed. The questions set out in this feedback form represent a key issues RiverOak are specifically seeking feedback on.

### Question 1

#### To what extent do you agree or disagree with our proposals for Manston Airport?

A detailed summary of the proposals can be found in the Overview Report.

Strongly agree / tend to agree / no opinion / tend to disagree / strongly disagree

### Question 2

#### Do you have any comments on our Outline Business Case for reopening Manston Airport?

RiverOak's Outline Business Case is available as part of the 2017 Consultation.

A summary of the business case can be found in the Overview Report.

If you need more space for answering any question, please continue on a separate sheet(s).

**Question 3**

**Do you have any comments or suggestions about how we could maximise the social and economic benefits of reopening Manston Airport?**

Information related to the social and economic potential benefits of the project are included in our PEIR (Chapter 13) and summarised in the Overview Report.

**Question 4**

Part of RiverOak's proposals include making more land available for the existing Spitfire & Hurricane Memorial Museum and the RAF Manston History Museum. The museums are not owned or operated by RiverOak.

**Do you have any suggestions about how we could support the Spitfire & Hurricane Memorial Museum and the RAF Manston History Museum?**

If you need more space for answering any question, please continue on a separate sheet(s).



### Question 5

#### **Do you have any comments or suggestions about the potential impacts of the Project and our proposals to limit them?**

This information is included in our PEIR and summarised in the Overview Report.

Any comments relating to the PEIR and RiverOak's mitigation proposals can be included in answers to this question.

### Question 6

As part of the development of the project, RiverOak have been exploring the potential impacts and benefits of limited night flights at Manston Airport. Night flights will make Manston Airport even more attractive for air freight and will allow us to explore more opportunities for benefits in the region but come with additional impacts. We have assessed for up to eight flights a night but we have not made a decision about whether to include night flights (or how many) in our application.

#### **Do you have any comments on the possibility for limited night flights at Manston Airport?**

Details of RiverOak's assessment of potential noise impacts can be found in Chapter 12 of the PEIR.

A summary of the issue can be found in the Overview Report.

### Question 7

#### **Do you have any other comments about our proposals for re-opening Manston Airport?**

If you need more space for answering any question, please continue on a separate sheet(s).

---

If you have provided an email address or postal address, we will send you an acknowledgement that we have received your Feedback Form.

**Telephone: 0800 030 4137 / Email: [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk)**

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**  
**CONSULTATION REPORT APPENDICES**  
**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 7**

**Consultation Overview Report**

An aerial photograph of a purple airplane wing and engine, viewed from the passenger window. The wing extends from the top right towards the center, and the engine is visible below it. The background shows a vast expanse of white clouds over a blue landscape, likely a coastal or island region.

# RSP

RiverOak Strategic Partners

## **Manston Airport**

2017 Consultation

Overview Report

**For Consultation**

June 2017

## Suite of Consultation Documents

As part of the statutory consultation under section 42 of the Planning Act 2008 a suite of consultation documents relating to the proposal to reopen Manston Airport is available to the public. Together these documents give an overview of the development proposals including information on the potential benefits and impacts of the Project, environmental considerations and the business case. The documents also provide further information on the consultation process and enable the public to submit their feedback.

The suite of consultation documents includes:

1. a Consultation Leaflet giving an overview of the proposals and details of where more information about the Project can be found;
2. a Feedback Form in order to collect responses to the consultation;
3. **an Overview Report giving a summary of the proposals including the potential benefits and impacts of the Project, how we propose to mitigate against potential impacts, and a non-technical summary of the Preliminary Environmental Information Report;**
4. a Preliminary Environmental Information Report (PEIR); containing preliminary information on the likely environmental effects of our proposals as we have ascertained them so far, including noise, transport and air quality, and how we propose to minimise these effects, as well as how we propose to maximise the benefits of the Project;
5. a draft Masterplan for Manston Airport;
6. Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth;
7. an Outline Business Case;
8. a Statement of Community Consultation;
9. a Location Plan; and
10. an Interim Consultation Report, setting out the details of the first stage of consultation and how feedback received has been used to help develop the proposals.

We would like to hear comments and suggestions about the extent to which you agree or disagree with our proposals for Manston Airport, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.



# Introduction

**RiverOak Strategic Partners ('RiverOak') proposes to reopen Manston Airport as a vibrant air freight hub with associated business aviation and passenger services, creating almost 30,000 jobs within East Kent by the airport's 20th year of operation.**

Our proposals to reopen Manston Airport ("the Project") are classified as a Nationally Significant Infrastructure Project by the Planning Act 2008 because they anticipate a capacity for at least 10,000 air transport movements of cargo aircraft each year.

We are now consulting on our proposals before submitting an application for a Development Consent Order to the Planning Inspectorate. This consultation will fulfil a number of requirements set out in the Act, allowing us to refine our proposals before submitting our application.

**The consultation runs from Monday 12 June 2017 to Sunday 23 July 2017.**

This consultation will provide an opportunity for the public to scrutinise and comment on our proposals, which include more detailed information than was available during our non-statutory consultation in Summer 2016.

This booklet provides a summary of the information we have made public for the purposes of the public consultation on our proposals for reopening Manston Airport.

This document is the Overview Report for the 2017 Consultation. It gives a summary of the proposals including the potential benefits and impacts of the Project, and a non-technical summary of the Preliminary Environmental Information Report.

This information is also provided on our website: [www.rsp.co.uk](http://www.rsp.co.uk)

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# The Case for Manston Airport

**Manston Airport is a unique and important strategic transport asset to the UK that is currently unused. Located in the South East where aviation industry demand is highest and most constrained, the airport already has an illustrious history as a Battle of Britain airfield and more than 40 years' experience of commercial operations.**

An estimated at least £2 billion is lost to the UK economy each year due to capacity constraints in the London airports system<sup>1</sup>. This figure is set to rise to £3.9 billion by 2050, even with an additional runway at Heathrow. Manston Airport is ideally placed to help recapture this traffic, which is being displaced to mainland Europe.

Reopening Manston Airport as a hub for international air freight will help deliver economic prosperity and employment across Kent, address the chronic shortage of runway capacity in the South East, and protect a vital aviation resource for the nation.

RiverOak Strategic Partners is proposing to reopen Manston Airport as an international air freight hub. RiverOak has secured the necessary investment, has the right strategy and has the commitment of a senior team, all of whom have been dedicated to the Project since 2014. This is Manston Airport's opportunity to fulfil its economic potential and, in doing so, become a vibrant catalyst for economic growth not only in East Kent but across the UK.



<sup>1</sup> Centre for Business Research (2016), The Importance of Air Freight to UK Exports: The impact of delaying the runway capacity decision on UK international trade growth. Report for Let Britain Fly Campaign, available from <http://londonfirst.co.uk/the-importance-of-air-freight-to-uk-exports/>

# Why Manston Airport?

**The air freight market is ripe for an alternative to the overcrowded London airports system. Air freight is increasingly being bumped from the belly holds of busy passenger aircraft. In addition, this lack of air freight capacity means that goods bound to and from UK businesses and consumers are flown into mainland European airports and trucked across the English Channel. This adds unnecessary cost and delays to businesses and customers. Manston Airport can provide the answer.**

## Air freight capacity in the South East

**The London airports facilitate 76% of the UK's air freight. It is clear that freight operators prefer to fly in and out of the South East and this is where the additional capacity must be provided. In comparison to its congested neighbours in the South East, (Heathrow, Gatwick and Stansted) Manston Airport will, with the right investment, have ample capacity and all the characteristics of an ideal freight-focused airport.**

Manston Airport has an existing runway, an ideal airspace location, and easy road access to the national motorway network, Channel Tunnel and mainland Europe. This, together with its ability to focus on providing a dedicated, rapid handling and turnaround service for air freight, makes Manston Airport both an attractive prospect for freight forwarders and cargo airlines and the strongest option available to Government to quickly and easily increase runway capacity in the South-East.

Reopening Manston Airport would provide almost immediate relief to the pressing situation that is causing the UK economy to lose more than £2bn every year the shortage of runway capacity across the South-East airports system remains unaddressed.

Even with a third runway at Heathrow, this figure is projected to increase to £3.9 billion by 2050. By its fifth year of operation our projections show that Manston Airport will be handling more than 10,000 cargo movements which together would carry more than 180,000 tonnes of inbound and outbound freight.

## Opportunity and demand

**Detailed analysis by respected aviation academic Dr Sally Dixon, shows that Manston Airport enjoys considerable support among both airlines and freight forwarders. (Freight forwarders act as agents between those who need to move cargo and those with the means to do so such as airlines, shipping companies and logistics firms.)**

A revived Manston Airport would provide a realistic alternative to the overcrowded London airports, reduce the volume of freight trucked through the Channel Tunnel to mainland European airports, improve the resilience of the UK's airport network, and boost economic growth and jobs in Kent. The impact of the UK leaving the European Union will only serve to make these challenges greater as border controls are reinforced and the logistics of trucking freight in and out of the UK become more complex.

In addition, there is evidence that the current absence of a specialist air freight security clearing facility at other UK airports is slowing down the handling of air freight, again providing an opportunity for Manston Airport to provide a specialist service for air freight.

**"I can certainly say with confidence that we would consider recommending Manston Airport to our customers as a viable regional option should the airport ever reopen for business."**

**Rob Buda, Senior Director at Atlas Air**



Manston Airport has the potential to become a hub for inbound perishables such as fruit, vegetables, fish, seafood and cut flowers. These goods are likely to be carried on chartered freight aircraft as was the case when the airport was previously in use. However, in contrast to previous operations at the airport, a dedicated business development team for Manston Airport would seek to find export loads for these aircraft to ensure they depart the airport full rather than empty.

The business development team would, for example, target freight that is currently trucked to other EU airports for shipment and all-freighter services that are currently unable to use UK airports due to the lack of airport capacity, facilities and appetite for their business.

**In addition, opportunities exist for Manston Airport to handle:**

- Outsized freight
- Express freight
- Formula One and luxury cars
- Live animals (for breeding or racing)
- Time sensitive items such as those for aircraft and the oil and gas industry

While most freight movements through Manston Airport would be handled by freight forwarders, RiverOak would also seek to explore the integrator market. Integrators are operators which not only arrange cargo movements but also own the aircraft which carry the cargo.

Finally, Manston Airport has a history of military and humanitarian operations and these would be expected to return to Manston Airport should the airport become operational once again.



### Lack of alternatives

**There is no other airport or airfield in the South East that would realistically be able to provide a service like that which could be provided by Manston Airport.**

Biggin Hill suffers from difficult road access, a short runway and is too close to Gatwick Airport to handle larger aircraft. Bournemouth also has poor access for trucks carrying freight – it is 30 miles from the M3 and M27 on a route that passes through the New Forest National Park. Farnborough has a restriction imposed on the number of aircraft movements, particularly during weekends, and only certain aircraft categories are permitted. Both Lydd and Southend have runways which are too short for dedicated freighters. Northolt RAF station is too close to Heathrow and has a short runway, as has Shoreham. Southampton, which handled 185,000 tonnes of cargo in 2015, is principally a passenger airport and cannot offer the dedicated service that Manston Airport could.

Further afield, airports like East Midlands already serve significant air freight requirements, so why not expand capacity there? Whilst in no way dismissing the success of airports like East Midlands, evidence from the Department for Transport<sup>2</sup> shows that much of the freight being trucked between East Midlands Airport and the South East is hampered by congestion on the UK's road network. To avoid exacerbating these surface access issues further, the optimum location for additional capacity for air freight must therefore be in the South East.

We would like to hear comments and suggestions about our Outline Business Case for Manston Airport, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.



### The Brexit effect

**It is becoming increasingly clear that the already important role played by aviation in the UK's economic success is set to become even more profound in a post-Brexit world.**

As the UK shifts towards more global trade, the importance of air freight to the economy will increase. British exporters will be looking to capitalise on new trade agreements and reach countries further afield. Similarly, our changing relationship with the EU will make the current practice of trucking air freight to and from continental airports across the Channel even more expensive and time consuming with the introduction of tariffs and border checks.

This responsibility will place further demands on the limited capacity in the South East. Under RiverOak's plans, reviving Manston Airport as a focused air freight hub would make a significant contribution towards accommodating this constrained demand, allowing the UK to maximise the economic benefits it derives from post-Brexit trading with the EU and the rest of the world.

**More information about this topic can be found in our Outline Business Case. Please see page 45 for details of how to access all the 2017 Consultation documents.**



<sup>2</sup> DfT, 2009, page 26 (data collected in June 2006 by Manchester Airports Group)

# A powerful economic impact

Airports pack a particularly powerful economic punch. A 2015 Airports Council International (ACI) Europe study showed that aviation in Europe<sup>3</sup> was worth 4% of the entire economic output of the European Union, worth 12.5 million jobs, or €675 billion in Gross Domestic Product (GDP) each year.

A revived and successful Manston Airport would deliver economic prosperity through direct employment at the airport, provide direct support for supply chains in the local area, as well as providing indirect support through the increased spending created by these additional jobs.

Some of these benefits will be tangible and easy to attribute to the airport's activities, however there will also be benefits that are felt a long way down the supply chain, and in the increased expenditure within the region, as a result of the increased confidence that the airport's success would inspire.

## Job numbers

**Manston Airport would be expected to directly employ around 350 people in the first year. Additional jobs would be created by airlines, freight forwarders and integrators, onsite passenger services such as a travel agency, a bar and restaurant, shops, as well as government roles in customs and immigration.**

In year two, the first year of freight operation, it is expected that employment on and around the Manston Airport site is expected to be around 850 people directly employed, with a further 5,000 people employed within the region in the supply chain, in associated industries or businesses or as a result of the airport's presence in the economy.

By year 20, this figures is expected to rise to over 4,200 people employed directly at the airport site and a further 26,000 in the wider regional economy.

In addition, each construction phase is expected to produce 600-700 jobs at their peak, plus additional employment in the region associated with the construction periods.

We would like to hear comments and suggestions about how we could maximise the social and economic benefits of reopening Manston Airport, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.



## Other socio-economic impacts

**In addition to job creation, there would be numerous other benefits to the region's economic and social wellbeing of reopening Manston Airport.**

A vibrant airport would boost the region's GDP through increased income from a wide variety of sources including tourism, tax revenues from job creation and inward investment by businesses keen to locate close to the airport and other benefits from the improved connectivity into and within Kent that a revived Manston Airport would provide.

In addition, RiverOak is also committed to working with local and regional further and higher education providers to ensure local people benefit from the opportunities the airport will provide.

It is intended that Manston Airport's operations will be harnessed to unlock the aspirations of young people and encourage them to embrace the vibrant and fulfilling career possibilities the airport will present.

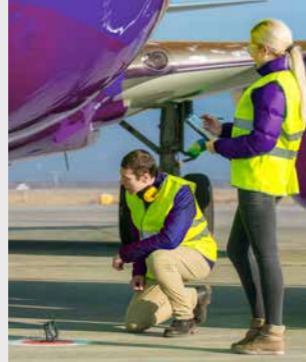
With that in mind we have already contacted local education providers, including both further education colleges and universities, to discuss opportunities to create aviation-focused training courses and channels to employment. We would also expect to create resource packs for local schools, targeting all four key stages, which provide airport-related content to support the National Curriculum.

**More information about this topic can be found in our volume 4 of the report "Manston Airport a national and regional aviation asset". Please see page 45 for details of how to access all the 2017 Consultation documents**

## Range of employment opportunities

Employment at the airport would be a mix of role types including:

- Freight services
- Passenger services
- Rescue and Fire Fighting Services
- Airport operations
- Maintenance
- Site and freight security
- Administration
- Air Traffic Services



**Over 4,200 people employed directly at the airport by year 20**



**with a further 26,000 employed in the wider regional economy.**



# Celebrating a rich heritage

Manston Airport has an incredible history stretching back over a hundred years. It has a unique place in recent British history, which has mirrored world events. RiverOak is committed to celebrating and protecting this history for future generations.

We would like to hear comments and suggestions about how RSP could support the Spitfire & Hurricane Memorial Museum and the RAF Manston History Museum at Manston Airport, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.



1916

## First World War

The cliffs at Thanet had been equipped with a number of small landing strips but the precarious conditions led to several accidents. In the winter of 1915-1916, early aircraft had taken to using farmland around Minster and Manston Airport for emergency landings.

The Admiralty soon opened the 'Aerodrome' at Manston Airport. A training school was set up for the new 'Handley Page' bombers and there were two squadrons stationed at Manston Airport by the end of 1916.

The newly established Royal Flying Corps, the precursor of the modern RAF, took over the Aerodrome towards the end of the war.



A Handley-Page bomber used by the English for air raids during World War I.

1940

## Second World War

Manston Airport was used as a forward operating base by many squadrons because of its location. It was attacked throughout the war and heavily targeted during the Battle of Britain (July – October 1940).

Tests of the 'Dam Buster' bombs were carried out from RAF Manston in Spring 1943 shortly before their use. An original 'bouncing bomb' is currently on display at the Spitfire & Hurricane Memorial Museum at Manston Airport.

July 1944 saw RAF Manston host the first operational flights of the Gloster Meteor Mk 1, the first British jet fighter (and only Allied jet aircraft of the war). Its initial role was to intercept and shoot down V-1 flying bombs.

Manston Airport's proximity to the frontline and long, wide runway saw it used throughout the war by badly damaged planes in need of urgent landings.



Prime Minister Winston Churchill meeting 615 Fighter Squadron at RAF Manston in 1941.

1960

## The Cold War

The United States Air Force used Manston Airport as a Strategic Air Command throughout the 1950s, before returning the airfield to the RAF in 1960.

Manston Airport became a joint civilian and RAF airport, offering package tours and a base for air freight operations in addition to its military roles. RAF Manston continued as a base for a number of military functions including training, and search and rescue.



Four US Air Force thunder jets in flight formation in the 1950s.

1989

## From 1989

Manston Airport became 'Kent International Airport' in 1989 and its new terminal building was opened by Sarah, Duchess of York.

This signalled the end of its long military service.



View of the terminal entrance and runway at Manston Airport.

Within RiverOak's proposals, we intend to relocate the museums to the site of the old air traffic control tower, creating a dedicated museum quarter and supporting the museums in celebrating the unique and important heritage of the airport.

RiverOak will work closely with the museums to enable their relocation and to support their future plans.



# RiverOak's proposals

RiverOak's plans to redevelop and reopen Manston as a mixed-use airport are anchored by a significant and much-needed air freight hub able to handle at least 10,000 air freight movements a year.

To achieve this, RiverOak is proposing a multimillion-pound, four-phase construction and redevelopment plan, which will be delivered across an estimated 15 years.

The proposals include both the use of the existing airport infrastructure and the introduction of new facilities. In summary, our proposals include:

- upgrading the runway and improving the Alpha parallel taxiway;
- constructing 19 new air cargo stands;
- completely re-fitting the airfield navigation aids;
- refurbishing or replacing the existing fire station and constructing a new fire training area;
- building new air cargo facilities;
- developing a new air traffic control service, demolishing the current Air Traffic Control tower;
- building new aircraft maintenance hangars and developing areas of the 'Northern Grass' for airport related businesses; and
- highway improvement works to ensure improved access to and around Manston Airport, including a new, permanent, dedicated airport access on Spitfire Way which will help to reduce airport related traffic on the local road network.

RiverOak's proposals also retain and enhance the existing Spitfire & Hurricane Memorial Museum and the RAF Manston History Museum by creating a museum quarter on the site of the former Air Traffic Control tower.

RiverOak's proposals include passenger and apron facilities for at least one passenger carrier, although the aim will be to attract a number of low cost carriers as well as charter and scheduled flights. We are also keen to work with Dover Harbour Board to receive passengers destined for cruise ships. The development of passenger services will be distinct and separate from our focus on building the air freight operation. This will ensure the cargo carriers are provided with a dedicated and swift service to maximise the economic potential of Manston Airport.

**In addition to the air freight hub RiverOak proposes to develop:**

- an aircraft teardown and recycling facility;
- a flight training school;
- a fixed base operation for executive travel; and
- business facilities for aviation related organisations.

We would like to hear comments and suggestions about the extent to which you agree or disagree with our proposals for Manston Airport, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.

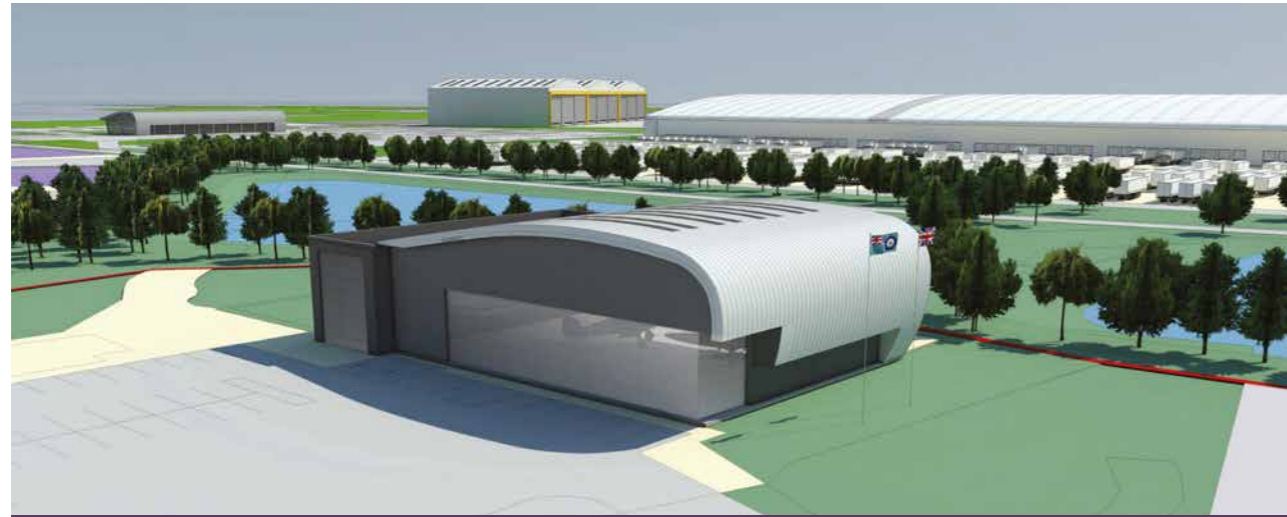


## A different approach

Evidence shows that Manston Airport struggled commercially in the past due to both under investment and inappropriate strategies. Airport operations have been too focused on passenger traffic in the past and in tough economic circumstances these operations can be fragile for major airports, let alone small regional facilities. In comparison, the air freight market is more robust, yet it is suffering disproportionately in the South East due to the lack of runway capacity, with priority being given to passenger traffic.

By targeting air freight, a business sector where there is a proven, unmet demand and developing a broader range of revenue streams, Manston Airport will have a more solid foundation upon which to build. This requires an operator and investor with the resources to take a long-term view of the airport as an investment and not expect an instant return.





Spitfire & Hurricane Memorial Museum Proposal



Aerial view of proposed Manston Airport development



Aerial view of proposed Manston Airport development from the west

## Timescales

RiverOak is planning to apply to the Planning Inspectorate for a Development Consent Order later in 2017 with a decision expected to be made by the Secretary of State in late 2018 or early 2019.

Should a Development Consent Order be granted, the plan is for Manston Airport to reopen within two years, with 10,000 air freight flight movements per year predicted within five years of operation.

Manston Airport no longer has an aerodrome licence. The Airport will need a new EASA Certificate from the Civil Aviation Authority, and potentially other consents, to be brought back into aviation use. The process of obtaining these consents will run alongside the DCO application process and a decision on them will be made by the Civil Aviation Authority rather than the Secretary of State.

## Conclusion

**Manston Airport is a valuable regional and national asset, rich in history and with an important future ahead of it. It is capable of quickly and easily providing infrastructure that is badly needed by the UK in the short, medium and long-term and will play a role in helping Britain trade effectively with the rest of the world, something that has grown in strategic importance since the vote to leave the European Union.**

RiverOak's proposals for Manston Airport are in line with both regional and national planning policy in that they propose the sustainable development of an important brownfield site and retention of an existing nationally significant infrastructure asset. The Project would also significantly improve the UK's ability to handle air freight – another key Government objective.

As with any major infrastructure project, the relationship Manston Airport has with its neighbours is of particular importance. Unusually or even uniquely for an airport, Manston Airport continues to benefit from community support. During its last stage of public consultation, held by RiverOak in July 2016, more than 800 responses were received with 90% of them supporting the re-opening of the airport.

In an increasingly competitive economic climate, the UK cannot afford to lose one of its longest-serving and strategically significant airports. With the investment proposed by RiverOak, the extensive local support and its natural assets, Manston Airport is capable of making a substantial contribution to the future economic and social wellbeing of the nation.

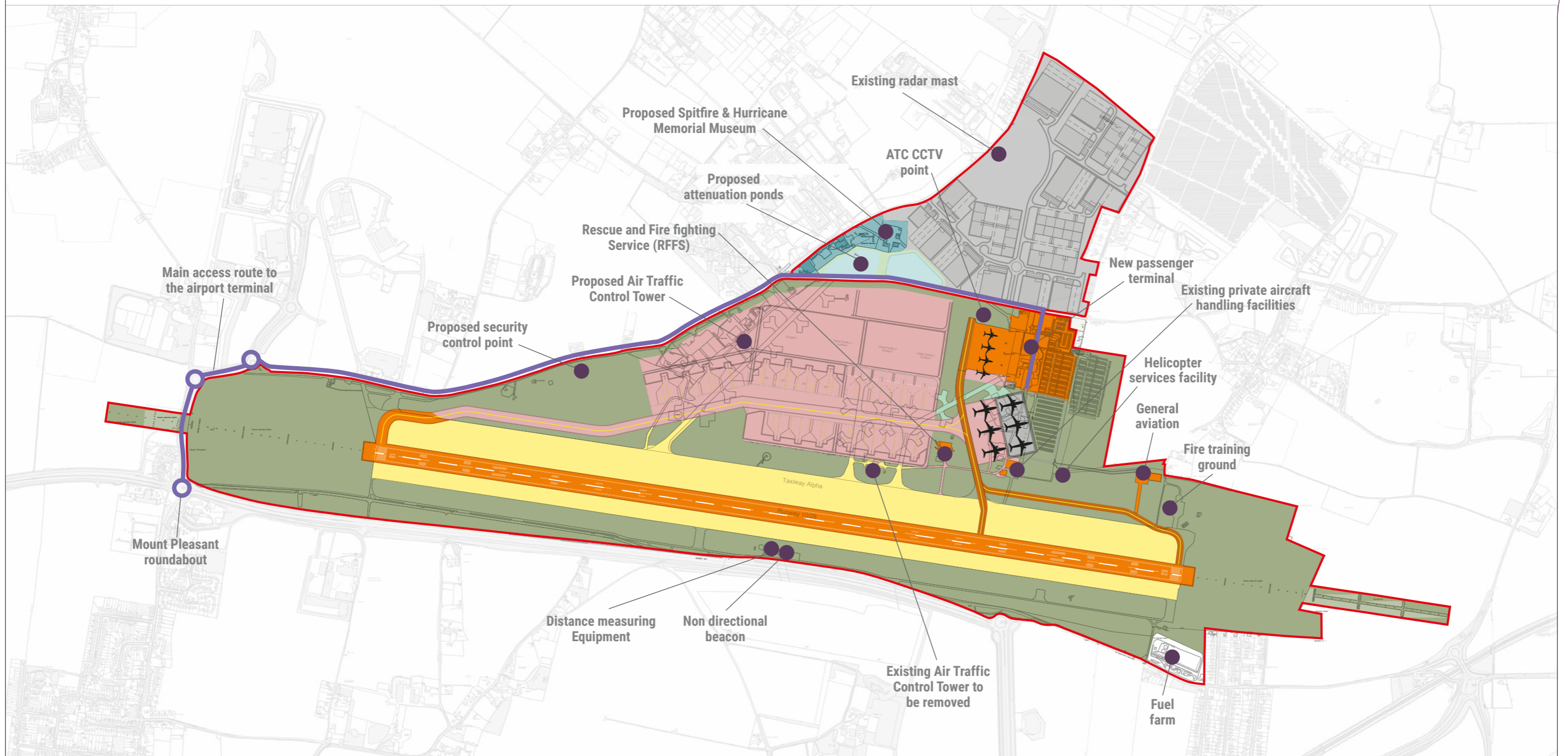


“For decades, we have argued that Manston Airport was a sleeping giant: a regional and national asset.”

Kent County Council, March 2015

# Key

- Site Boundary
- New Airfield Infrastructure
- Drainage Infrastructure
- Museum Area
- Existing Airfield assets to be retained
- Existing Pavement (Potential to breakout & re-use as fill material)
- Proposed Aviation-Related Business Development
- Main access route to the airport terminal



# Project Programme

The current programme for the project anticipates submission of the DCO application later in 2017. Based on this anticipated submission date an outline programme for the project is provided below:

Component	Start Date	End Date	Airport Year of Operation
Granting of DCO	2019	N/A	Year 1
Construction Phase 1	2019	2020	Year 1
Start of limited airport services	2019	2020	Year 1
Opening of 1st Phase of airport	2020	N/A	Year 2
Start of air freight services	2020	N/A	Year 2
Start of passenger services	2021	N/A	Year 3
Construction Phase 2	2020	2023	Years 2-4
Construction Phase 3	2023	2030	Years 4-10
Construction Phase 4	2030	2036	Years 11-17



Indicative view of cargo facility at Manston Airport

# Construction Phase

The construction will be undertaken in four phases, Construction Phase 1 will take place before the airfield re-opens and will focus on installing the key airport infrastructure and equipment to allow the airport to re-open. The timing of Phases 2-4 will vary depending on the needs to meet the increasing demand for capacity, but they are expected to be completed by year 15 (2036).

The construction of key components of the Project will be phased as follows:

	Phase 1	Phase 2	Phase 3	Phase 4	Total
<b>Aircraft Stands</b>	8 (cargo), 3 (passenger)	6 (cargo)	2 (cargo)	3 (cargo), 1 (passenger)	23
<b>Cargo Facilities</b>	<b>12,000m<sup>2</sup></b>	<b>16,500m<sup>2</sup></b>	<b>14,000m<sup>2</sup></b>	<b>23,000m<sup>2</sup></b>	<b>65,500m<sup>2</sup></b>
<b>Access, Storage and Parking</b>	<b>14,000m<sup>2</sup></b>	<b>24,371m<sup>2</sup></b>	<b>26,992m<sup>2</sup></b>	<b>34,766m<sup>2</sup></b>	<b>100,129m<sup>2</sup></b>
<b>Taxiway and Aprons</b>	<b>23,000m<sup>2</sup></b>	<b>64,240m<sup>2</sup></b>	<b>89,854m<sup>2</sup></b>	<b>78,346m<sup>2</sup></b>	<b>255,440m<sup>2</sup></b>

Note: An 'apron' is an area of the airport where aircraft are parked, loaded, unloaded, refuelled and boarded, typically constructed from concrete.

**A summary of all of the construction activities, and of their general programming across Construction Phase 1 is provided below:**

- site set-up and establishment;
- new site access and internal access roads;
- construction of surface water drainage system, including construction of attenuation ponds;
- installation of new and/or upgrade to existing site services and utilities;
- earthworks to create building platform;
- runway Rehabilitation (asphalt paving);
- construction of new taxiways, aprons and cargo stands (concrete paving);
- highway Improvements (Spitfire Way/Manston Road junction);
- construction of new air freight and cargo facilities;
- construction of new terminal building and car parking facilities;
- construction, refurbishment and/or relocation of existing business aviation, flight school and training, and helicopter/heli-charter services;
- construction/installation of new air traffic control, approach lights, airfield ground lighting, navigational aids and radar;
- construction of new Rescue and Fire Fighting Service facilities, and fire training ground; and
- landscaping along the boundary with Spitfire Way and Manston Road.

### Site Compounds

During Construction Phase 1, a construction compound, storage and working area would be established on an area of existing concrete hardstanding, near to the new access on Spitfire Way. The existing airport hangars and buildings located in this area would be utilised for storage and office space in order to reduce the need for any temporary site cabins or facilities. Concrete and asphalt batching plants are expected to be used during Construction Phase 1, and these would also be established in this area. A construction phase operations plan for Phase 1 will be published in due course.

For subsequent construction phases (2-4), which will require a much smaller compound area, a site compound is proposed in the South East of the site as shown on Figure 3.31, PEIR Volume 4.

### Construction Working Hours

It is proposed that during Construction Phase 1, working hours will be Monday to Friday 07:30 to 17:30, and Saturday 07:30 to 13.00. There will be no planned working on Sundays or Bank Holidays. During Construction Phases 2-4, when the airport would also be operational, there may be a limited number of occasions where construction may need to take place outside of these hours including at night.

It is estimated that during Construction Phase 1 there will be an average of 210 construction staff employed on site, and during the peak periods a maximum of 630 construction staff employed.

### Site Access and Construction Traffic Movements

Access to the site for all construction vehicles would be from the new site access to be constructed on the B2190 (Spitfire Way). From the wider strategic highway network (the A2/M2) construction vehicles will use the A299/Thanet Way (junction 7 of the M2), B2190/Minster Road (Minster Roundabout), and the B2190/Spitfire Way as shown on Figure 3.31, PEIR Volume 4.

It is estimated that there will be approximately 120 heavy good vehicle movements per day, a movement being defined as a single journey to or from the site, associated with the earth moving operations during Construction Phase 1. Other construction traffic movements, including during Construction Phases 2-4 are estimated at 100 movements per day.

### Construction Phase Management Plans

A Draft Construction Environmental Management Plan (CEMP) will be submitted as part of the DCO application. This will set out various measures in accordance with legislation and best practice for reducing possible construction effects.



# Operational Phase

### Air Freight and Passenger Forecast

By 2041 the number air freight movements are expected to be in region of 17,000 per year, and passenger flight movements are expected to be in the region of 10,000 per year. This equates to approximately 350,000 tonnes of air freight and 1,400,000 passengers per year.

### Flight Timings

Air freight operations would be predominantly during the daytime, in accordance with operations at other similar air freight airports. There may be a requirement for a small number of night-time flights, the details of which will be determined as part of the on-going project design, taking account of feedback from the Statutory Consultation, and presented with the DCO and assessed within the Environmental Statement.

For the purpose of the PEIR assessment, and as a worst case, the working assumption is that there might be a maximum of eight (8) aircraft movements at night between the hours of 2300 and 0600. The remaining air freight air traffic movements are spread evenly across the daytime period.

Passenger flights would be daytime only, 0700-2300 but with limited exceptions during a 'shoulder' period from 0600 to 0700 for certain passenger flights departing to Europe or arriving from the United States.

### Airport Hours of Operation and Staffing

The airport would be capable of operating 24 hours a day all year round. By year 20, which represents maximum operation for the airport forecast, direct employment creation is predicted to be in the region of 4,000 jobs, a quarter of which will be people employed directly by the airport with the remainder employed by other business and operations based on the airport site.

### Other Airport and Aviation Related Services

In addition to the core business of air freight, and the provision of passenger services, Manston Airport would also serve as a base for a number of other airport and aviation related services. These would include:

- a flight school;
- business aviation and executive travel;
- maintenance, repair and overhaul facility; and
- aviation related business facilities, for example, warehousing, offices, airport-related business units.

### Airport Operational and Management Procedures

The airport would produce and implement a number of operational and management procedures in order to comply with the requirements of the Civil Aviation Authority, European Aviation Safety Agency and other licensing authorities, and to ensure that mitigation measures are implemented. Relevant industry standards, guidance and best practice will be followed, and where appropriate, consultation will be undertaken with relevant stakeholders and consultees.



# Non-Technical Summary of the PEIR

## The Purpose of this Non-Technical Summary

This is a non-technical summary (NTS) of the Preliminary Environmental Information Report (PEIR) prepared to support the pre-application consultation process for the proposed reopening and development of Manston Airport into a hub for air freight, also offering passenger, executive travel, and aircraft engineering services.

The information contained in the PEIR, and therefore within the NTS too, is 'preliminary' and has been produced to enable people to comment on RiverOak's proposals. These will then be considered during the development of the Project design, and in the further assessment of the likely significant environmental effects.

More introductory information can be found in Chapters 1-5 of the PEIR (Volume 1).

## Background to the proposals

The Project is on the existing site of Manston Airport in Kent. The airport ceased operation in May 2014. The site covers an area of approximately 300 hectares, and is located west of the village of Manston and north east of the village of Minster. The town of Margate lies approximately 5km to the north of the site and Ramsgate approximately 4km to the east. Sandwich Bay is located approximately 4-5km to the South East. The site boundary is shown on page 16.

Much of the airport infrastructure, including the runway, taxiways, aprons, cargo facilities, and a passenger terminal remains, with a number of the buildings still in use, including a helicopter pilot training centre and RAF museum.

The northern part of the site is bisected by the B2050 (Manston Road), and the site is bounded by the A299 dual carriageway to the south and the B2190 (Spitfire Way) to the west. The existing site access is from the junction of the B2050 with the B2190.

The Project is considered to be an 'Environmental Impact Assessment (EIA) Development', and an Environmental Statement (ES) will be submitted as part of the DCO application. Preparation of a PEIR is part of the overall EIA process for NSIPs and forms part of this consultation.

## The Environmental Impact Assessment Process

Environmental impact assessment (EIA) is the process of identifying and assessing the likely significant environmental effects, both positive and negative, of a Project. Measures are proposed to avoid, reduce and, where practicable, remedy any likely significant adverse environmental effects (where possible, these are incorporated into the design).

The PEIR presents the preliminary findings of the EIA being undertaken for the proposals to reopen Manston Airport.

### Consideration of Alternatives

The EIA process requires that potential alternative options be investigated and outlined within the Environmental Statement.

In undertaking the consideration of alternatives the PEIR sets out the key requirements and characteristics for a dedicated air freight airport (assuming that the site will be an existing airport site), these comprise:

- a 2500m+ (non-grass) runway capable of supporting CAT II/III runway operations;
- airport infrastructure with the capacity to expand and provide facilities for new air freight operators according to demand;
- licensed, or the ability to obtain a licence, from the European Aviation Safety Agency for the operation of the types of aircraft currently used, and likely to be used in the future, by air freight operators;

- capacity to accommodate dedicated air freighters and hold freight, including capability to handle oversized and live animal cargo;
- availability of new slots for air freight operators, and a flexibility of existing slots;
- air freight operations not constrained by passenger and other operations;
- airspace that is outside of the London Control Zone to provide maximum flexibility and capacity for airport operations;
- good surface access to the strategic highways network, with no bottlenecks to access in or around the airport, with as an additional advantage a good connection to high quality public transport infrastructure; and
- located in the South East of England close to the main significant population and commercial centres, with as an additional advantage a good connection with continental Europe.

A review of the strategic alternatives to Manston Airport to meet the need for additional air freight capacity has been considered within the PEIR. This includes looking at London's existing mature airports, namely: Stansted, Heathrow, Gatwick, Luton, London City and Southend. The business models for these airports focus primarily on the passenger market with most freight being carried in aircraft baggage hold rather by dedicated air freighter.

Additional alternative options for increasing air freight capacity in the South East have been identified and considered, including other existing airports in the South East, such as Biggin Hill, Farnborough, Lydd, Northhold, Rochester, and Shoreham. However none of these airports have the existing airport infrastructure nor the capability to provide the necessary infrastructure to provide the necessary additional infrastructure to support the requirements of a dedicated freight airport.

The Manston Airport site meets the required criteria, e.g. an existing runway of the correct length to receive freight aircraft, to realise this Project. It also has the potential for new infrastructure to be created, such as highways improvements to provide upgraded site access. It is considered that reopening and developing the Manston Airport site is the most suitable and viable option for the location of a freight-focused airport in the South East of England.

Alternative designs and site layouts have been considered as part of the ongoing design evolution of the Project. Alternatives with respect to the site access, surface water drainage system and the location and design of the fuel farm, are currently being considered. The consideration of environmental factors will play a key role in determining these elements.

With respect to site access, the existing accesses (Spitfire Way; B2190, and Manston Road; B2050) are not deemed to be fit for purpose in terms of the capacity of traffic that can be accommodated. The option to create a new dedicated air freight access off Spitfire Way (approximately 920m south west of the existing Spitfire Way access) and update the existing access off Manston Road is favoured over upgrading the existing access off Manston Road and using this as the single site access. The proposed new access along Spitfire Way would minimise the traffic impact on the properties and businesses that are located further north along Spitfire Way. Overall, the preferred option is deemed to be the most advantageous in both operational and environmental terms.

Further consideration of alternatives will be undertaken as the project evolves, and more details on the assessment of such alternatives will be provided in the Environmental Statement to be submitted in support of the DCO application.

# 1. Air Quality

More information about Air Quality can be found in Chapter 6 of the PEIR (Volume 1).

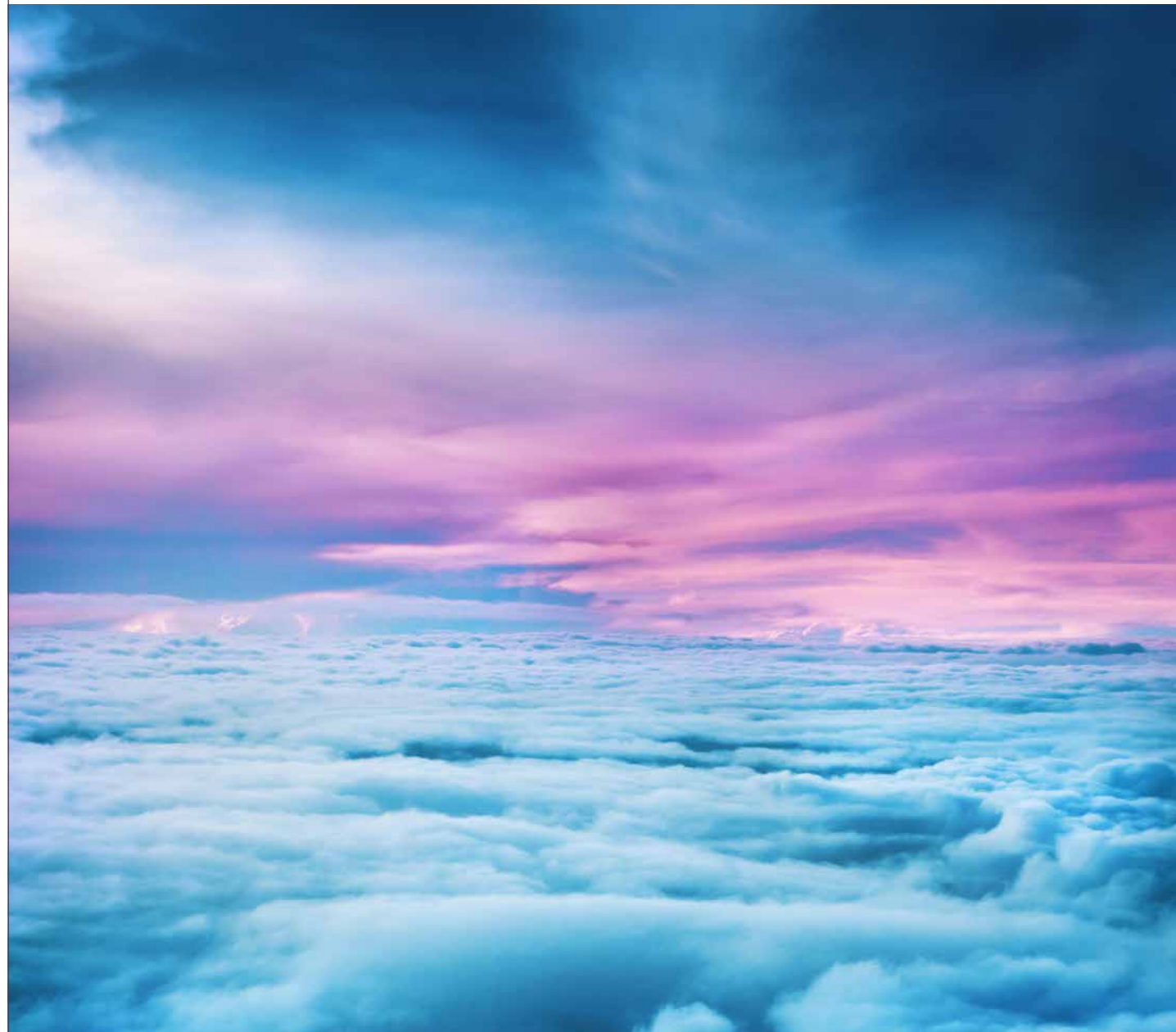
## 1.1 Introduction

This section provides an overview of existing air quality and sets out the findings of the preliminary assessment of the effect of the Project on air quality, and the potential effect that this could have on human health and ecological sites.

## 1.2 Overview of Existing Air Quality Baseline

Thanet generally has very good air quality; however, there are areas at The Square in Birchington, and the junction of Hereson Road/Boundary Road and High Street St Lawrence Ramsgate where air quality is poor due to pollution from road transport (source: Thanet District Council website).

The boundary of the Project site abuts the boundary of the Thanet Urban Area Air Quality Management Area (AQMA) which encompasses areas of Thanet where levels of nitrogen dioxide are above the national air quality objective for the protection of human health. In all cases, the main source of pollution is road transport.



## 1.3 Preliminary Findings and Next Steps

A desk study into current concentrations of air pollutants has been undertaken to inform the preliminary air quality assessment.

In relation to the potential effect on human health, oxides of nitrogen (nitrogen dioxide (NO<sub>2</sub>) and nitric oxide (NO)), and to a lesser extent particulate matter, have been identified as the air quality pollutants of potential concern associated with airport operations. Concentrations of nitrogen oxides (NO<sub>x</sub>) in the air are also associated with adverse effects on ecological sites.

Potential effects that may arise as a result of the Project are:

- Dust generated during construction phase;
- Dust soiling of the local road network due to the transport of dust and dirt from vehicles leaving the site during the construction phase;
- Emissions from the use of equipment and machinery onsite during construction;
- Vehicle emissions during both construction and operation;
- Emissions from aircraft movements on the ground and during the land and take-off cycle; and,
- Emissions from aircraft ground support equipment.

A CEMP will be submitted as part of the DCO application. This will set out various measures in accordance with legislation and best practice for reducing possible construction effects.

Delivery and dispatch schedules for HGVs that avoid, where possible, causing congestion on the local road network and excessive emissions to the atmosphere, will be agreed and enforced. Also, a “no unnecessary idling” policy for all vehicles on the development site will be enforced.

Aircraft arrival and departure scheduling will be planned so as to avoid, where possible, over-long idling, taxiing and hold times, and over-long operation of liquid fossil-fuelled ground support equipment.

The significance levels of air quality effects are determined in line with legislation, and guidance from the Institute of Air Quality Management (IAQM) and Environmental Protection UK (EPUK).

Predicted concentrations of nitrogen dioxide and particulate matter for the maximum operation of the airport are not forecast to exceed national air quality objectives for the protection of human health, and in most cases these will remain well below the recommended limit.

The air quality effect on designated ecological sites that could be significantly affected will be subject to further assessment as part of the EIA process.

The effect of vehicle emissions on air quality will be assessed as part of the EIA process.

We would like to hear comments and suggestions about the potential impacts of the Project and our proposals to limit them, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.



## 2. Biodiversity

More information about Biodiversity can be found in Chapter 7 of the PEIR (Volume 2).

### 2.1 Introduction

This section provides an overview of the existing biodiversity onsite and within its surroundings. This section also sets out the findings of the preliminary assessment of the effects of the Project on biodiversity, including potential effects on internationally, nationally and locally designated sites of conservation interest, priority habitats and species for biodiversity conservation, and legally protected species.

### 2.2 Overview of Existing Biodiversity Baseline

There are eight internationally designated nature conservation sites within 10km of the Project site, the four closest of which are approximately 925m away to the South East. These comprise two Special Protection Areas (SPAs), three Special Areas of Conservation (SACs), one Site of Community Importance (SCI) and one Ramsar site.

Six nationally designated conservation sites are located within 10km of the Project site, comprising four SSSIs, the closest of which, Sandwich Bay to Hacklinge Marshes, is approximately 925m away to the South East; and two National Nature Reserves: Sandwich and Pegwell Bay, approximately 925m to the south west; and Stodmarsh, approximately 8km to the south west.

There is the potential for species which are legally protected or are a priority for nature conservation to be present either on or adjacent to the site. This includes, reptiles, bats, terrestrial invertebrates, and breeding birds. Site survey work will be undertaken to determine the presence or absence of these species, and assess roosting potential of onsite buildings.



### 2.3 Preliminary Findings and Next Steps

A data-gathering exercise has been undertaken to obtain all available information relating to protected biodiversity sites, species and habitats:

- o Designated ecological sites, for example:
  - o Thanet Coast & Sandwich Bay
  - o Sandwich Bay to Hacklinge Marshes
  - o Thanet Coast
  - o Sandwich and Pegwell Bay
  - o Bats
  - o Great Crested Newts
  - o Reptiles
  - o Breeding Barn Owls
  - o Terrestrial invertebrates

Designated sites and protected species are potentially at risk from the following:

- Removal of, damage to, and disturbance of habitat
- Land take/land cover change (habitat removal)
- Increased light, noise and vibration
- Effects from increases in vehicle movements
- Disturbance of commuting routes (bats)
- Effects from dust, and air emissions
- Discharge of site drainage

Construction and operational phase environmental management measures (relating to the prevention and control of dust, noise and vibration, and pollution), and habitat-specific mitigation, will be implemented to ensure that any effects that would significantly adversely affect biodiversity are avoided, reduced, or where appropriate, compensated for. Where required, a Natural England licence will be obtained for any works that could affect wildlife or habitats. This ensures that works carried out as part of the Project will avoid risk to the conservation and welfare of protected species.

A CEMP will be submitted as part of the DCO application. This will incorporate various measures such as the above in accordance with legislation and best practice for reducing possible construction effects.

Further protected species surveys are to be undertaken to inform the assessment of the likely significant effects of the Project on biodiversity. The assessment of the likely significant effect on designated sites will be informed further by additional ecological survey and desk study data, further information on flight paths, and noise and air quality modelling.

In addition, a Habitats Regulations Assessment (HRA) will be undertaken and submitted as part of the DCO application. The HRA process helps to determine likely significant effects and (where appropriate) assess adverse effects on the integrity of a protected European ecological sites. Compensatory measures will be proposed if required to mitigate any significant effects.



# 3. Freshwater Environment

More information about Freshwater Environment can be found in Chapter 8 of the PEIR (Volume 2).

## 3.1 Introduction

This section provides an overview of the existing freshwater environment and sets out the findings of the preliminary assessment of the effects of the proposed scheme, including potential effects on water resources and flood risk.

## 3.2 Overview of Existing Freshwater Environment Baseline

The Manston Airport site is underlain by a Chalk Aquifer, which typically provides a high level of water storage, and makes a significant contribution to Thanet’s public water supply. This aquifer has been acknowledged as strategically important by the Environment Agency and is classified as a Secondary A aquifer, which the Environment Agency considers to be of local importance.

The site is located entirely within an area considered by the Environment Agency to be at risk of groundwater contamination from pollution-causing activities. The area of the site where this risk is greatest is beneath the runway.

The Kent Isle of Thanet Chalk groundwater body that underlies the site is a Drinking Water Protected Area under EU law. The southern part of the site is located within the Monkton and Minster Marshes surface waterbody, which joins the River Stour, and then flows into Sandwich Bay and Pegwell Bay.

Environment Agency flood mapping indicates that the site is located within an area where flooding from rivers and the sea is very unlikely. However, a potential risk from sewer flooding has been identified.

## 3.3 Preliminary Findings and Next Steps

A desk study and site visits have been undertaken to establish the existing freshwater environment, and a draft assessment on compliance with Environmental Agency best practice guidance regarding groundwater protection.

Aspects of the freshwater environment that have the potential to be significantly affected by the Project include: surface water, groundwater and flood risk. Receptors are identified in the table below:

Potential effects that may arise as a result of the Project are summarised below:

Receptor	Nature of Potential Effect
The water quality of the Chalk Aquifer unit, Thanet Formation, dependant abstractions and the Kent Isle of Thanet chalk groundwater body	Increase of turbidity of the underlying groundwater during the construction phase. Pollution from leakages and spillages of oils, fuels or other chemicals during construction and operational phases.
Monkton and Minster Marshes (River) and the River Stour	Site run-off during the construction phase, or from surface water discharges during the operation.
Pegwell Bay (and associated designated sites)	Surface water discharges into Pegwell Bay during construction and operational phases – via the existing surface water discharge system.
The capacity of the Public Water Supply Network and Public Sewer network	Increase in demand for potable water supply and for foul water connections during construction and operational phases
Flood risk receptors (on and adjacent development)	Changes to site drainage and discharge during construction and operational phases

The implementation of best practice construction measures, and agreeing an approach to any piling with Southern Water and the Environment Agency, will ensure that any negative construction phase effects on the Southern Water public water supply sources, are avoided. The impact of potential spills from the fuel farm during the operational phase has been identified as potentially significant, and therefore will require the development of further control and mitigation measures to be agreed with Southern Water and the Environment Agency. Furthermore, in consultation with the Environment Agency and Southern Water, site-specific measures for the protection of the chalk aquifer would be implemented via an Emergency Spill Response Plan, in order to avoid any significant negative effects on the Kent Isle of Thanet chalk groundwater body.

Discharges of surface drainage to Pegwell Bay would be regulated by the Environment Agency via a Water Discharge Activity permit. This will ensure that there is no negative effect on Pegwell Bay and other designated ecological sites in the area.

The site drainage network will be designed to take into account the possible impacts of climate change, as per national planning policy guidance. A Flood Risk Assessment and Drainage Strategy will be produced in consultation with the Environment Agency, Kent County Council and Thanet District Council.

Site discharge to the foul sewer will be at a rate appropriate for the capacity of the local sewer network.

Measures to prevent and minimise water demand onsite will be implemented where possible, and will be documented in a Sustainability and Resources Strategy which will be submitted with the Environmental Statement.

A Water Framework Directive (WFD) Assessment will be produced and submitted as part of the development consent to demonstrate how the Project of the site will not compromise the achievement of WFD objectives for the surface water and groundwater bodies identified above.

A final Hydrological Impact Assessment will be produced in discussion with the Southern Water and the Environment Agency.



# 4. Historic Environment

More information about Historic Environment can be found in Chapter 9 of the PEIR (Volume 2).

## 4.1 Introduction

This section provides an overview of the existing historic environment and sets out preliminary information on the significant effects of the proposed scheme, including potential effects on historic buildings and sites and archaeological heritage assets.

## 4.2 Overview of Existing Historic Environment Baseline

There are two Scheduled Monuments (an historic building or site of national importance that is included in the Schedule of Monuments kept by the Secretary of State for Culture, Media and Sport), within 1km of the site. There are no listed buildings within the site, however there are 24 listed buildings within 1km of the site.

There are over 800 previously identified non-designated archaeological features within the site and within 1km of the site, including archaeological remains from the prehistoric through to the medieval period onwards, and more recently including the various phases of use as an airport, which are evidence of long-term human activity within the area.

There are no Conservation Areas within 1km of the site, however the conservation areas of Acol and Minster in Thanet are within 2km of the site.

## 4.3 Preliminary Findings and Next Steps

A preliminary assessment was undertaken in accordance with best practice guidance and standards issued by Historic England and The Chartered Institute for Archaeologists. In order to inform the assessment, a desk study and site survey were carried out.

Aspects of the historic environment that have the potential to be significantly affected by the Project include; previously identified archaeological heritage assets and previously unrecorded archaeological features, historic buildings within the airport boundary, designated heritage assets within 1km of the site and beyond.

Potential effects that may arise as a result of the Project are summarised below:

Receptor	Type of impact	Nature of Potential Effect
Undesignated and previously unrecorded heritage assets onsite	Direct	Disturbance or removal of archaeological remains by intrusive groundworks, stripping soil, or piling, during the construction phase.
The heritage significance of the airport and surviving assets relating to World War I, interwar, World War II and Cold War uses of the site	Direct and indirect	Losses or changes to existing heritage assets during construction, or to changes of the site during operation.
The settings and views of designated and undesignated heritage during the construction phase	Indirect	The siting of construction compounds and other temporary construction equipment and structures, including cranes and the concrete/asphalt batching plants
The settings and views of designated and undesignated heritage during the operational phase	Indirect	Changes to the landscape and views as a result of visibility of the new buildings and other elements of the project in views of and from heritage assets  Noise from overflights by aircraft
Museum assets onsite	Direct	Relocation within the site boundary

The design of the Project has sought to avoid likely locations of greater archaeological potential onsite. Any harm or loss of archaeological interest can be mitigated by archaeological investigation and recording – the scope and method of which would seek to agree with the Kent County Council Heritage team in advance. Where it is not possible to reuse or retain buildings of heritage significance, a programme of building recording will be prepared and implemented.

The two existing museums on site, the RAF Manston History Museum and the Spitfire and Hurricane Memorial Museum, will be relocated to a new onsite museum area. Care will be taken to ensure that the new location retains a view of the runway where possible, in line with advice from Historic England and the heritage advisor at Kent County Council.

The location of any piling will give consideration to the presence of significant heritage assets and avoid them, where possible.

A full archaeological desk-based assessment and an archaeological disturbance plan will be prepared for the Environmental Statement. As part of this desk-based assessment, heritage assets that could experience a level of noise that is likely to impact upon how they are experienced, will be identified, and the contribution made to their significance from their current sound environment will be examined. The nature and extent of change caused by potentially increased noise will be considered and, where necessary, mitigation measures recommended.



# 5. Land Quality

More information about Land Quality can be found in Chapter 10 of the PEIR (Volume 2).

## 5.1 Introduction

This section provides an overview of existing land quality and aspects of the environment that could be affected by any potential adverse impacts on land quality as a result of the Project. This section also sets out the preliminary findings of the assessment of potential land quality effects.

## 5.2 Overview of Existing Land Quality Baseline

Key characteristics of and risks to the existing land resource have been identified as:

- The entire site and surrounding area is underlain by an aquifer that provides approximately 70% of the water to the Southern Water Kent Thanet Water Resource Zone.
- Pegwell Bay and Sandwich Bay, both of which are valued for their biodiversity and afforded legal protection, are located approximately 900m South East of the site boundary.
- There is an area of high quality agricultural land located directly southwest of the site.
- There is the potential for residual buried unexploded ordnance to be present onsite, due to previous site use as an RAF airfield during World War II.
- The highest risk of contamination is associated with the risk to groundwater from the Jentex fuel farm site

## 5.3 Preliminary Findings and Next Steps

A preliminary assessment of potential effects of the Project on land quality has been undertaken, and informed by a land quality assessment and geo-environmental desk study. A site visit was also carried out to supplement information of the site's setting and any potential land quality issues.

Aspects of the environment that have the potential to be significantly affected by the Project, in the context of land quality, include: humans (site and adjacent site users, and future site users), buildings and services, soils of high quality agricultural lands located offsite but directly adjacent to the southwest of the site, controlled waters (coastal waters: Pegwell Bay and Sandwich Bay), and groundwater in the chalk aquifer.

Potential effects that may arise as a result of the Project are summarised opposite:



Receptor	Nature of Potential Effect
People	<p><b>Construction Phase</b></p> <ul style="list-style-type: none"> <li>• Disturbance of soils which have the potential to contain contaminants</li> <li>• Spillages of oils and other chemicals</li> <li>• Direct contact, ingestion and/or inhalation of impacted soils</li> <li>• The discovery and potential for explosion of unexploded ordnance</li> <li>• Decommissioning of existing tanks and infrastructure on the Jentex site</li> </ul> <p><b>Operational Phase</b></p> <ul style="list-style-type: none"> <li>• Health hazard due to:                             <ul style="list-style-type: none"> <li>o Ingress and accumulation of ground gas resulting in explosion or asphyxiation of users of site buildings</li> <li>o Future maintenance works that may disturb any residual contamination</li> <li>o Spillages during re-fuelling</li> <li>o Residual contamination from inappropriate reuse/use of contaminated fills and soils during construction phase</li> </ul> </li> </ul>
Groundwater (chalk aquifer), Coastal Waters, and Soils	<p><b>Construction Phase</b></p> <ul style="list-style-type: none"> <li>• Disturbance of soils (earthworks) and mobilisation of existing contamination</li> <li>• Pollution from spillages of oils and other chemicals</li> <li>• Pollution incidents due to the creation of a route/s or mechanism by which a receptor could be exposed to, or affected by, potential contamination</li> <li>• Decommissioning of existing tanks and infrastructure on the Jentex site</li> </ul> <p><b>Operational Phase</b></p> <ul style="list-style-type: none"> <li>• Future maintenance works that may disturb and mobilise any residual contamination</li> <li>• Spillages during re-fuelling</li> <li>• Residual contamination from inappropriate reuse/use of contaminated fills and soils during construction phase</li> <li>• Pollution incidents resulting from fire-fighting activities and pesticide use</li> </ul>
Buildings and Services	<p><b>Construction Phase</b></p> <ul style="list-style-type: none"> <li>• The discovery and potential explosion of unexploded ordnance</li> </ul> <p><b>Operational Phase</b></p> <ul style="list-style-type: none"> <li>• Damage to property due to:                             <ul style="list-style-type: none"> <li>o Ingress and accumulation of ground gas resulting in explosion of site buildings</li> <li>o Residual contamination from inappropriate reuse/use of contaminated fills and soils during construction phase</li> </ul> </li> <li>• Permeation of plastic pipes by contaminants</li> </ul>

A detailed unexploded ordnance threat and risk assessment will be carried out prior to any intrusive works. A programme of intrusive Site Investigation will be undertaken if required to identify and characterise contamination across the site, and we would seek to agree a programme of clean-up with the Environment Agency and Thanet District Council.

Suitable foundation design and piling methods will be agreed with Southern Water and the Environment Agency prior to the commencement of works. All materials to be imported for use as part of the earthworks for the Project will be suitable and tested to an agreed acceptance criteria.

A CEMP will be prepared and submitted with the DCO application, this will include measures to manage any land quality effects during construction.

# 6. Landscape and Visual

More information about Landscape and Visual amenity can be found in Chapter 11 of the PEIR (Volume 2).

## 6.1 Introduction

This section provides an overview of the existing environment in terms of landscape and visual amenity, and sets out the findings of a preliminary assessment of the effects of the Project on these aspects of the environment.

## 6.2 Overview of Existing Landscape and Visual Baseline

The Project is located entirely within the National Landscape Character Area: North Kent Plain and the Thanet Landscape Character Area: Central Chalk Plateau. Five other Thanet landscape character areas are located within 5km of the site, including Pegwell Bay Landscape Character Area. Dover Landscape Character Areas also lie within 5km of the site.

The principal settlements within 5km of the site comprise the coastal towns of Ramsgate, Broadstairs and Margate. These coastal towns and the Kent Coast are popular tourist destinations which has given rise to numerous campsites, caravan sites and holiday parks in the area. The villages of Minster, Monkton and Cliffsend are located to the south of the site, Nicholas at Wade and Acol to the west and Manston to the east.

There is a relatively dense network of 'A', 'B' and minor roads within the surroundings of the site. Long distance footpaths within 5km of the site include Saxon Shore Way, Turner and Dickens Walk, Thanet Coastal Path, Stour Valley Walk, Wantsum Walk and the England Coast Path. Cycle routes in the area include Sustrans National Cycle Route 1 and the Viking Coastal Trail.

## 6.3 Preliminary Findings and Next Steps

A preliminary assessment of the potential landscape and visual impacts of the development has been undertaken in line with best practice guidance issued by the Landscape Institute and the Institute of Environmental Management and Assessment. To inform the assessment, a desk study was undertaken to establish the landscape character of the area, the likely (or theoretical) extent of visibility of the development was identified, and viewpoint locations that were deemed likely to be affected by the development were subsequently identified. Site surveys were conducted to help establish existing conditions, inform the selection of viewpoints and take photographs from these viewpoints.

Aspects of the environment that have the potential to be significantly affected by the impact of the Project on landscape and visual amenity, include: national and local landscape character areas and visual receptors (including, residents, people engaged in outdoor recreation, using the transport network and/or in public open spaces).

Potential effects that may arise as a result of the Project are summarised opposite:



Receptor	Development Phase	Nature of Potential Effect
National and local Landscape Character Areas	Construction	<ul style="list-style-type: none"> <li>• Use of cranes, and concrete and asphalt batching plants during construction operations</li> <li>• Ground level construction activities</li> <li>• Localised increases in noise levels</li> <li>• Construction related traffic on the local road network</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>• Air traffic and other on-airport vehicle movements</li> <li>• Large-scale infrastructure i.e. cargo facilities, aircraft hangar and the air traffic control tower</li> <li>• Changes to lighting around the airport</li> <li>• Increase in heavy goods vehicles on the local road network</li> </ul>
Visual Receptors	Construction	<ul style="list-style-type: none"> <li>• Temporary layout areas, earthworks and crane activity</li> <li>• Demolition of existing structures</li> <li>• Movement of plant, equipment and other vehicles on site</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>• Operation of large-scale cargo facilities, aircraft hangar and the air traffic control tower</li> <li>• Air traffic movements of cargo and passenger aircraft</li> <li>• Ground level movements of aircraft and other vehicles</li> <li>• Introduction of a range of new infrastructure and facilities</li> <li>• Loss of or disruption of existing views of skylines</li> <li>• Changes to lighting around the airport</li> </ul>

Preliminary findings suggest that there may be some disturbance of the high levels of tranquillity currently experienced at the Pegwell Bay Landscape Character Area due to the occasional presence of aircraft.

The Project is likely to have an urbanising influence on the generally rural Landscape Character Areas of the Former Wantsum Channel and the Former Wantsum North Shore.

Existing tree cover and hedgerows, built development and the topography of the area all serve to reduce the extent of construction phase visual impacts on surrounding towns and villages. It is anticipated that any negative visual impacts will be localised and temporary, and will most likely be due to the temporary presence of cranes above the intervening vegetation, buildings or topography. Landscape and architectural design will play a key role in further preventing or minimising any negative impacts on the landscape and visual amenity. Measures to prevent or reduce the landscape and visual impact of the construction phase will be incorporated into the CEMP.

A set of Manston Airport Design Principles will be used to ensure that all elements of the project, such as the cargo facilities, control tower and passenger terminal, are designed to a high standard and to minimise the visual impact of these structures.

Further assessment of landscape and visual impacts will be undertaken as part of the EIA process, pending the finalisation of the design and the landscape scheme, and the provision of more detailed information on proposed ground level and air traffic movements.

# 7. Noise and Vibration

More information about Noise and Vibration can be found in Chapter 12 of the PEIR (Volume 3).

## 7.1 Introduction

This section provides an overview of the current noise environment, and sets out the findings of the preliminary assessment of the potential noise and vibration impacts that could arise as a result of the Project.

## 7.2 Overview of Historic and Existing Noise Environment Baseline

Manston Airport provided a variety of airport-related services from 1916 until it ceased operation in May 2014.

Polar Helicopters, a helicopter charter businesses currently operates from the north of the site on Spitfire Way.

Long-term and short-term noise surveys were undertaken around the airport site, which identified that the dominant existing noise source at locations likely to be affected by development-related noise and vibration, was road traffic.

## 7.3 Preliminary Findings and Next Steps

A preliminary assessment of the potential noise and vibration effects of the Project has been carried out. This was informed by a desk study that collated existing baseline data and noise surveys undertaken at locations that are considered likely to be affected by development-related noise. To support the assessment of aircraft noise, the current noise sound environment was observed at locations further afield (focusing on centres of population around the airport that could potentially be overflown by aircraft).

Aspects of the environment that have the potential to be significantly affected by the potential noise and vibration impacts of the Project include; residential, community and on-residential receptors.

Potential impacts that may arise as a result of the Project are outlined below:

- Construction noise – earthworks, machinery and equipment
- Construction and operational noise – road traffic
- Construction vibration – earthworks, machinery and equipment
- Operational noise – industrial and commercial sound from equipment/machinery
- Operational noise – aircraft air noise and airside ground noise

Preliminary findings show that noise from earthworks and the use of equipment and machinery during the construction phase has the potential to give rise to significant effects at properties within 200m of the associated activities. These receptors are likely to include those located within: the western parts of Manston; Woodchurch; to the north-west of Cliffsend; Minster; and Acol.

Properties within Woodchurch, such as Bell Davies Drive and Tollemache Close, and properties within Manston, such as those on Manston Court Road have the greatest likelihood of being significantly adversely affected by construction and operation-related road traffic noise.

Residential properties in the south-west of Manston; the south of Woodchurch; and South East of Minster, which are within 100m of construction phase works, could be significantly affected by the vibrations impact of these works.

Airspace routes are preliminary at this stage; however initial assessment shows that aircraft air noise has the potential to significantly affect northern parts of Tothill Street (Minster), Smugglers Close (Minster), Ivy Cottage Hill (Minster), King Arthur Road (Cliffsend), Arundel Road (Cliffsend), Windsor Road (Cliffsend) and dwellings on Spitfire Way (Manston). The extent of the impact from night-time aircraft movements will extend further to also encapsulate receptors to the north of Canterbury Road in Cliffsend and residential dwellings to the west of St Lawrence and to the south of Manston Village.

A CEMP will be submitted as part of the DCO application. This will set out various measures in accordance with legislation and best practice for reducing possible construction effects. The Noise Mitigation Strategy will determine how noise will be managed and controlled in a manner that provides local communities certainty of the levels of noise that can be expected from the reopening of the airport and its forecast operation.

An aircraft noise insulation scheme will be offered as part of the Project to help avoid significant adverse effects of health and quality of life. The details of this insulation scheme are being developed and will be subject to a separate consultation.

Further works to be undertaken as part of the EIA and DCO application process include:

- A detailed assessment of construction noise, pending provision of detailed information on required construction works and methodology
- Aircraft air noise modelling, pending confirmation of airspace procedures and routes with the Civil Aviation Authority
- A detailed assessment of operational air noise taking into account aircraft type and specifications
- A detailed assessment of operational airside ground noise, operational industrial and commercial noise, noise from road traffic during construction and operational phases



We would like to hear comments on the possibility for limited night flights at Manston Airport, as part of our public consultation. Please see page 47 for more information on how to give us your feedback.



# 8. Socio-economics

More information about Socio-Economic can be found in Chapter 13 of the PEIR (Volume 3).

## 8.1 Introduction

This section provides an overview of the current socio-economic characteristics of the Thanet and the wider area, and sets out the findings of the preliminary assessment of the socio-economic impact of the Project, considering the potential effects on local business, local communities, tourism and local and regional economies.

## 8.2 Overview of the Existing Socio-economic Baseline

Unemployment in the district of Thanet is at significantly higher levels than Kent and nationally.

Tourism currently accounts for around 3,800 jobs across Thanet, concentrated in the coastal towns of Margate, Broadstairs and Ramsgate.

In 2014, there was a deficit of 215 places in primary school reception years across Kent and Medway. In 2014, overall every local authority in Kent and Medway had a surplus of more than one form of entry with regards to secondary schools. However, this masks shortages in urban areas, where pressure for places is greatest. There are 21 primary care surgeries across Thanet, one of which is located in the Rural Villages ward (which includes the Manston Airport site).

## 8.3 Preliminary Findings and Next Steps

A desk study has been undertaken in order to establish current socio-economic conditions, and a preliminary assessment of the potential socio-economic impacts of the Project has been undertaken.

Socio-economical aspects that have the potential to be significantly affected by the Project include, local businesses, local population/community, tourism and local and regional economies.

Receptor	Nature of Potential Effect
Local businesses	<p>Significant beneficial effects from both the construction and operation as a result of spending from employees of the airport, and also from opportunities for local business to supply the airport.</p> <p>Disruption to the local road network during construction impacting on employee and customer access.</p> <p>Aircraft noise and traffic volumes during operation impacting on employees and customers.</p>
Local communities	<p>Disruption to the local road network during construction impacting on amenity and access to services.</p> <p>Noise and dust during construction impacting on local amenity and health.</p> <p>Aircraft noise and traffic during operation impacting on local amenity and health.</p> <p>Additional burden on local services (education, health and recreation).</p>
Tourism	<p>Disruption to the local road network during construction impacting on employee and visitor access.</p> <p>Aircraft noise during operation impacting on amenity.</p>
Local and regional economies	<p>Significant beneficial effects from new jobs and training opportunities during both the construction and operation of the airport.</p>

A carefully designed programme of traffic management will be developed and implemented in order to minimise disruption to the local population during both construction and operation. Noise and dust associated with construction works will be appropriately controlled and managed, in line with best practice. In addition, a Noise Mitigation Strategy will be implemented in order to control and reduce aircraft noise.

During the construction and operational phases, local residents could experience noise and dust which have the potential, if not managed, to impact amenity and health, and disruption to, or pressure on, the local road network. Environmental Management Plans for both the construction and operational phases of the development will be developed and implemented to ensure that these impacts are avoided or reduced as far as practicable.

There is the potential for additional burden to be placed on local service provision. The degree to which particular localities will be affected will vary, and will depend on the current level of provision, the geography of additional housing provision and the level of additional required expenditure on service provision. Capacity enhancement could be required, should it be likely that local services are significantly negatively affected by the proposal.

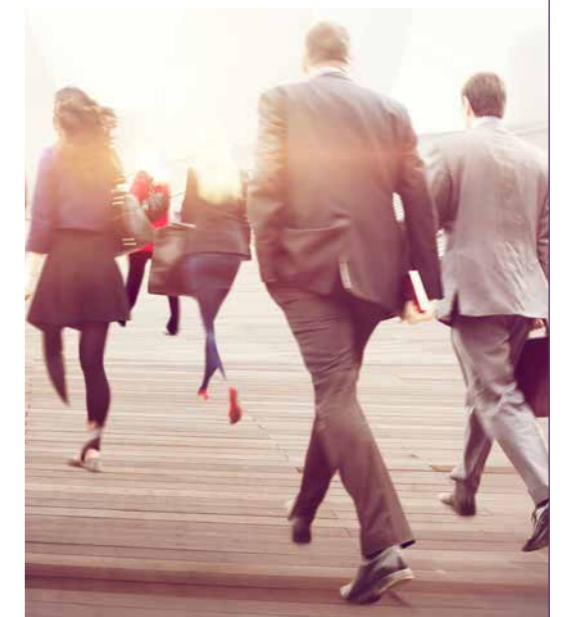
Some businesses in the tourism sector may experience a significant negative effect due the impact of aircraft noise on local amenity. As mentioned above, noise mitigation measures are being developed as part of ongoing work to support the Environmental Impact Assessment process.

The Project is expected to bring about significant positive impacts on local businesses, and local and regional economies. The operation and management of activities at the airport has the potential to significantly boost employment and income creation. There will also be opportunities to capitalise on the uplift in business activity generated by the development.

Local businesses could supply the airport with goods and services, in turn further boosting local job creation. Local businesses could also benefit from the likely increase in spending in the locality, and potentially wider as a result of the direct and indirect jobs created by the airport. Essentially, the Project is anticipated to bring about an uplift in local economic vibrancy.

Furthermore, there is the potential for coordination of training opportunities for those in deprived areas within the vicinity of the development.

Further assessment of the identified direct and potential indirect socio-economic impacts of the Project will be undertaken as part of the Environmental Impact Assessment process.



# 9. Traffic and Transport

More information about Traffic and Transport can be found in Chapter 14 of the PEIR (Volume 3).

## 9.1 Introduction

This section provides an overview of the existing local highway network, traffic flows and the level of reported accidents on local highways. This section also sets out the findings of the preliminary assessment of the effects of the proposed scheme, including potential effects on local roads, and users of those roads plus adjacent land uses and the occupiers and users of those premises.

## 9.2 Overview of the Existing Traffic and Transport Baseline

The current principal point of access to the existing site is via a priority junction located on B2050 Manston Road. Manston Road bisects the northern part of the site, and connects with Spitfire Way in the west and the A256 in the east.

The site is well located in terms of strategic vehicular access with the A299 skirting the southern boundary. The A299 was upgraded as part of the East Kent Access scheme which opened in May 2012 and provides strategic highway connections towards Sandwich, Deal and Dover to the south and towards Canterbury, Maidstone and London to the west.

## 9.3 Preliminary Findings and Next Steps

Receptors that may be affected include: local roads and the users of those roads, including public transport users, pedestrians, cyclists and equestrians; and land uses and environmental resources fronting those roads, including the relevant occupiers and users. Potential effects could take the form of:

- Severance: separation from facilities and services as a result of a major traffic artery, can apply to residents, motorists and pedestrians
- Pedestrian or Driver Delay
- Pedestrian Amenity: relative pleasantness of a journey
- Fear and Intimidation Experienced
- Accident and Safety Risk

Sections of the local transport network that could potentially be significantly affected by the Project unless mitigation measures are implemented, have been identified, and are shown opposite:



Location	Development Phase	Nature of Potential Impact
B2190 between A299 and Minister Road	Construction	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Pedestrian Delay</li> </ul>
	Year of Maximum Operation	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Pedestrian Delay</li> </ul>
B2050 Manston Road between Spitfire Way and Shottendane Road	Year of Maximum Operation	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Pedestrian Delay</li> </ul>
	Construction	<ul style="list-style-type: none"> <li>• Accident and Safety Risk</li> </ul>
Spitfire Way between Minster Road and Manston Road	Construction	<ul style="list-style-type: none"> <li>• Accident and Safety Risk</li> </ul>
	Year of Opening	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Pedestrian Delay</li> </ul>
	Year of Maximum Operation	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Driver Delay</li> <li>• Pedestrian Delay</li> <li>• Pedestrian Amenity</li> <li>• Fear and intimidation</li> <li>• Accident and Safety Risk</li> </ul>
Manston Road between Manston Court Road and A256	Year of Opening	<ul style="list-style-type: none"> <li>• Driver Delay</li> </ul>
	Year of Maximum Operation	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Driver Delay</li> <li>• Pedestrian Delay</li> </ul>
Haine Road between Manston Road and Haine	Year of Maximum Operation	<ul style="list-style-type: none"> <li>• Severance</li> <li>• Driver Delay</li> <li>• Pedestrian Delay</li> </ul>

A Transport Assessment will be submitted as part of the DCO application. This assessment will consider all aspects of transportation including sustainable transport modes, access strategies and the suitability of the highway network to accommodate the construction traffic and operational traffic. Mitigation measures will be proposed in order to minimise the effects on the transport network to an acceptable degree. Accident analysis and further investigation of driver delay impacts will inform proposed mitigation measures.

A Construction Traffic Management Plan, an Operational Traffic Management Plan, a Travel Plan, a Public Transport Access Strategy and a Pedestrian, Cycle and Equestrian Access Strategy will all be prepared to reduce the traffic impact of the Project.

Highway capacity improvements will form part of the DCO application, and will serve to address the potentially significant negative impact predicted to occur on Spitfire Way between Minster Road and Manston Road. These improvements may take the form of; junction widening, route upgrades, new pedestrian and public transport infrastructure, change of junction control, and/or new accesses.

# Frequently Asked Questions

## 1. What will the flight paths be?

As part of the consultation we have defined swathes within which aircraft approach and departure procedures will be designed; these can be found in Figures 3.32a to 3.32d of the PEIR (volume 4). This consultation also forms part of RiverOak's initial engagement on the design of airspace and procedures associated with the airport. As such it is an opportunity for members of the community to highlight any factors which they believe RiverOak should take into account during that design phase. Having taken all such factors into account, the subsequent proposals for flight paths and airspace will be subject to a separate round of consultation, as part of the Civil Aviation Authority's Airspace Change Process, once the DCO application has been made.

## 2. What will the airport's normal operating hours be?

Passenger flights would be daytime only, 0700-2300 but with limited exceptions during a 'shoulder' period from 0600 to 0700 for certain passenger flights departing to Europe or arriving from the United States.

## 3. What's RiverOak's position on night flights?

Air freight operations would be predominantly during the daytime in accordance with operations at other similar air freight airports. There may be a requirement for a small number of night-time flights, the details of which will be determined as part of the ongoing project design, taking account of feedback from the Statutory Consultation, and presented with the DCO and assessed within the Environmental Statement.

For the purpose of the PEIR assessment, and as a worst case, the working assumption is that there might be a maximum of eight (8) aircraft movements at night between the hours of 2300 and 0600. The remaining air freight air traffic movements would be spread evenly across the daytime period. Passenger flights would be daytime only, 0700-2300 but with limited exceptions during a 'shoulder' period from 0600 to 0700 for certain passenger flights departing to Europe or arriving from the United States.

## 4. How many additional road traffic movements will there be as the result of planned airport operations?

Precise forecasting for road traffic movements (freight, passenger and employee) is being calculated as part of a Transport Assessment, which is being undertaken at present and will be submitted as part of the DCO application. Within this assessment we will be considering information provided by Dr Sally Dixon in 'Manston Airport - a Regional and National Asset, Volumes I-IV' which forecasts 64,906 HGV movements per year in year 20.

## 5. What highway improvements will be required to accommodate this increased road traffic?

The masterplan includes proposals for highways improvements, but these are also dependent upon the findings of the Transport Assessment and agreement by Kent County Council and Highways England.

## 6. Are you intending to operate air traffic control remotely?

Safety will always be our top priority. This is one of several options being considered and we are working with the Civil Aviation Authority to find the safest and most secure outcome for Manston Airport.

## 7. Are there other 'remote operation' plans for Manston Airport?

No, there are no other 'remote operation' plans for Manston Airport.

## 8. How many jobs do you expect to create when the airport is open?

In the first full year of operation it is expected that employment on and around the Manston Airport site will be around 850 people directly employed, with a further 5,000 people employed within the region in the supply chain, in associated industries or businesses, and as a result of the airport's presence in the economy.

By year 20, these figures will rise to over 4,200 people employed directly at the airport site and a further 26,000 in the wider economy. In addition, each construction phase will produce 600-700 jobs at their peak, plus additional employment in the region associated with the construction periods.

## 9. What sort of jobs?

Employment at the airport will be a mix of role types including:

- Freight services
- Passenger services
- Rescue and Fire Fighting Services
- Airport operations
- Maintenance
- Site and freight security
- Administration
- Air Traffic Services

## 10. What economic benefits will the airport create for Thanet/East Kent/the UK?

In addition to job creation, there would be numerous other benefits including:

- Working with Higher and Further Education bodies to leverage opportunities for training associated with the airport's operation and raise the aspirations of young people by stimulating a desire to continue in education and training.
- Generating wealth: the airport will boost the region's GDP through increased income from a wide variety of sources including tourism, tax revenues from job creation and inward investment by businesses keen to locate close to the airport and other benefits from the improved connectivity into and within Kent that a revived Manston Airport would provide.

## 11. How will you ensure employment opportunities are available to the local community first?

All employment opportunities will be advertised locally and it is our intention that as many local people as possible should benefit from Manston Airport's reopening through a wide range of job opportunities.

## 12. What impact does Brexit have on Manston Airport's future role?

It is becoming increasingly clear that the already-important role played by air freight in the UK's economic success is set to become even more profound post-Brexit. However, the negotiations are at an early stage and so we need to watch these closely to understand the role Manston Airport could play. Given this rapidly developing situation, the idea of permanently destroying much-needed aviation infrastructure, at Manston Airport, which could quickly and easily be called into action to support the UK's economic needs, should be viewed as completely untenable.

## 13. How many flights a day do you expect to operate from Manston Airport?

In its first year of operation, our proposals see Manston Airport handling around 5,000 movements a year (the equivalent of seven departures and seven arrivals a day), by year six we anticipate that Manston Airport will exceed 10,000 movements a year and by year 20 we envisage the airport handling a little over 26,000 a year, which equates to between four and six flights an hour during normal operating hours.

## 14. Have any airlines said they will use Manston Airport?

We have held discussions with established air freight operators. For normal and understandable commercial reasons, many, at this stage, wish to keep their interest in Manston Airport confidential. However, some airlines, such as Atlas Air and SmartLynx Airlines, have gone on the record expressing their confidence in our proposals and you can read more of their comments in the reports compiled by Dr Sally Dixon of Azimuth Associates, entitled 'Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth.'



# How to find out more

Copies of all consultation documents can be found on our website; [www.rsp.co.uk](http://www.rsp.co.uk)

Printed copies of all consultation documents can also be found in the public libraries below during their normal opening hours. All libraries can be contacted by telephone on 03000 41 31 31 and are closed on public holidays.

Libraries with consultation documents		
Name	Address	Opening hours
<b>Note:</b> All libraries can be contacted by telephone on 03000 41 31 31 and are closed on public holidays. Opening hours are correct at the time of publication.		
<b>Note:</b> Due to the size of the PEIR, it will only be available at Deal, Margate and Ramsgate libraries.		
<b>Birchington Library</b>	Alpha Road, Birchington CT7 9EG	Mon, Tue, Thu, Fri: 9am-6pm Sat: 10am-2pm, Wed, Sun: closed
<b>Broadstairs Library</b>	The Broadway, Broadstairs CT10 2BS	Mon, Tue, Wed, Fri: 9am-6pm Thu: 9am-8pm, Sat: 9am-5pm, Sun: closed
<b>Cliftonville Library</b>	Queen Elizabeth Avenue, Margate CT9 3JX	Mon, Tue, Thu, Fri: 9am-6pm Sat: 10am-2pm, Wed, Sun: closed
<b>Deal Library</b>	Broad Street, Deal CT14 6ER	Mon-Fri: 9am-6pm, Sat: 9am-5pm Sun: 10am-4pm
<b>Herne Bay Library</b>	124 High Street, Herne Bay CT6 5JY	Mon-Fri: 9am-6pm, Sat: 9am-5pm Sun: closed
<b>Margate Library</b>	Thanet Gateway Plus, Cecil Street, Margate CT9 1RE	Mon, Tue, Wed, Fri: 9am-6pm Thu: 9am-8pm, Sat: 9am-5pm, Sun: closed
<b>Minster-in-Thamet Library</b>	4A Monkton Road, Minster, Ramsgate CT12 4EA	Mon: 2pm-6pm, Tue, Thu: 9am-1pm and 2pm-6pm, Fri: 9am-6pm, Sat: 10am-2pm, Wed, Sun: closed
<b>Newington Library</b>	Marlowe Academy, Marlowe Way, Ramsgate CT12 6NB	Mon, Tue, Thu, Fri: 9am-6pm Sat: 10am-2pm, Wed, Sun: closed
<b>Ramsgate Library</b>	Guildford Lawn, Ramsgate CT11 9AY	Mon-Fri: 9am-6pm, Sat: 9am-5pm, Sun: closed
<b>Sandwich Library</b>	13 Market Street, Sandwich CT13 9DA	Mon, Tue, Thu, Fri: 9am-6pm, Sat: 10am-2pm, Wed, Sun: closed
<b>Westgate Library</b>	Minster Road, Westgate-On-Sea CT8 8BP	Mon, Wed: 9am-5pm, Tue, Fri: 9am-6pm, Sat: 10am-2pm, Thu, Sun: closed

## 15. Won't another runway at Heathrow remove the need for Manston Airport?

No. There is a significant shortage of runway capacity in the South East. A future additional runway at Heathrow, which is not expected to become operational until 2026 at the earliest, would still leave a predicted £3.9 billion of unmet air cargo demand by 2050 as the new runway would be prioritized to meet the unmet passenger aircraft demand.

## 16. Will RiverOak be the airport operator or will you bring in an operator to run Manston Airport for you?

RiverOak Strategic Partners is still assessing a number of options in relation to the operation of the airport. Whichever route is chosen, the operating company will need to be licensed by the Civil Aviation Authority.

## 17. Do you have financing available for the whole project?

The development of a robust business case has enabled us to ensure we have all the financing in place to meet all the costs involved in reopening Manston Airport as an operational airport.

An Outline Business Case has been prepared for consideration and scrutiny as part of this consultation.

## 18. How do we know you won't build housing on the Northern Grass?

We have made a submission to the Thanet Local Plan consultation to the effect that the entire airport site, including the Northern Grass, should be zoned exclusively for aviation or aviation-related use. Our DCO application will confirm this and will not include housing proposals for the Northern Grass or anywhere else.

## 19. How much will the project cost?

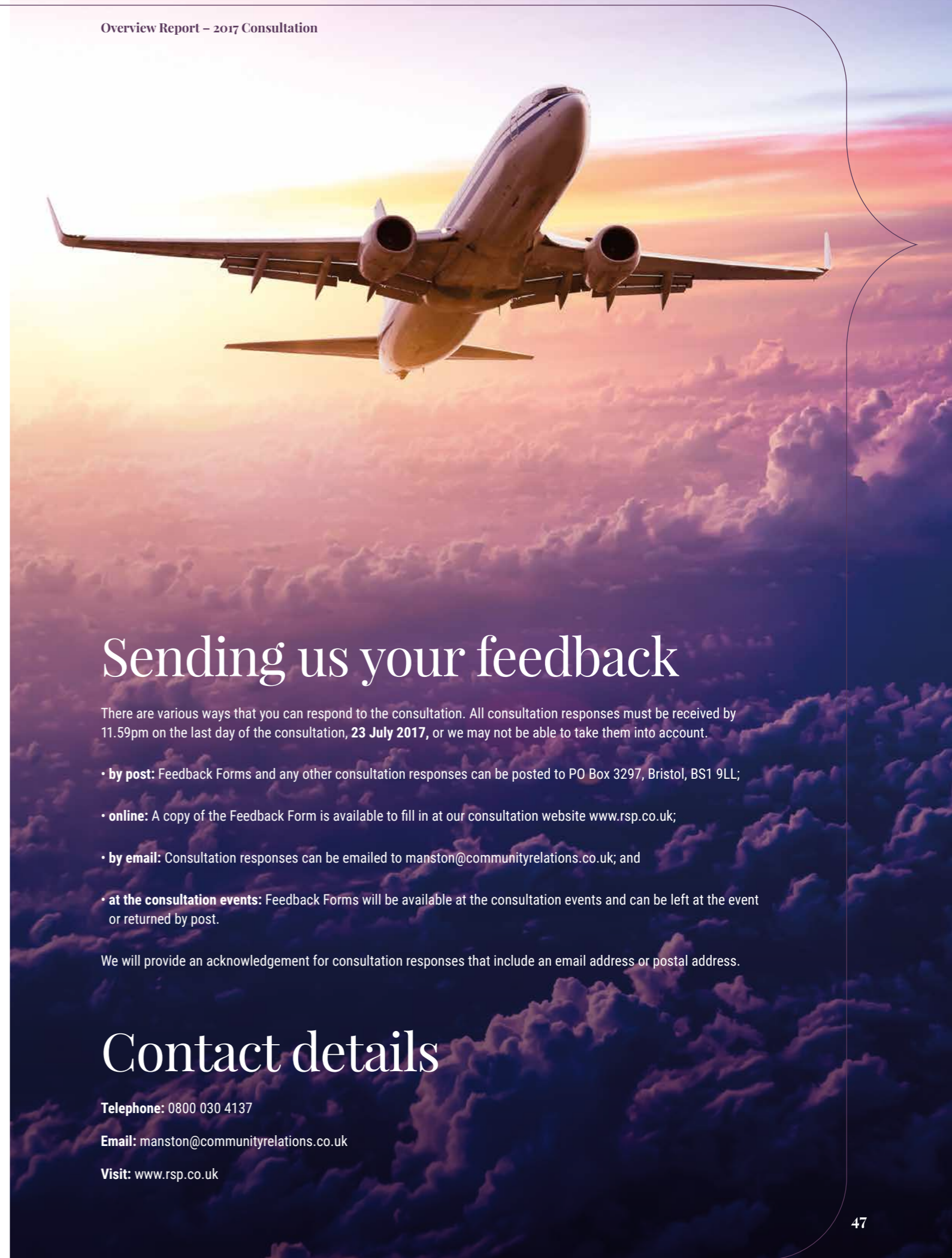
Over twenty years we expect to invest £300 million in Manston Airport.



We are also holding a series of events where anyone who is interested in the project can attend, read the consultation documents, see visual displays of our proposals, talk to our professional team, and leave feedback.

The events will take place as follows:

Location	Address	Accessibility	Date & time
Herne Bay	<b>The King's Hall</b> Beacon Hill, Herne Bay, CT6 6BA	The Kings Hall is served by the number 6 and Triangle route bus services. There are disabled spaces available in the car park a short distance from the venue and a drop off point directly outside. There is step-free access to and within the venue and accessible WCs for sole disabled use.	Wednesday 14 June 2pm - 8pm
Broadstairs	<b>The Pavilion</b> Harbour Street, Broadstairs, CT10 1EU	The Pavilion is served by the number 56 and also the 8A, 9, 33, 38 and 40 bus services, with a short walk to the venue from the closest bus stop. Disabled parking is accessible and the venue is wheelchair accessible. Please note there is no disabled toilet at this venue.	Thursday 15 June 2pm - 8pm
Cliffsend	<b>Cliffsend Village Hall</b> Foads Lane, Cliffsend, CT12 5JH	Cliffsend Village Hall is served by the number 88 bus, with a short walk to the venue from the nearest bus stop. There is no specific disabled parking area but the village hall has 15 spaces as well as on road parking in the local area. Please note there is no disabled toilet at this venue.	Friday 16 June 2pm - 8pm
Margate	<b>The Sands Hotel</b> 16 Marine Drive, Margate, CT9 1DH	There are several bus routes, including numbers 8/8A/8X, 32, 34 and 36, which include Margate and stop at nearby Marine Terrace adjacent to Dreamland. There are three disabled parking spaces available at the venue and there is both step free access into the hotel and disabled toilet facilities.	Saturday 17 June 10am - 2pm
Sandwich	<b>The Guildhall</b> Sandwich, CT13 9AP	The Guildhall is served by several bus routes including numbers 13/13A, 14 and 88/88A. There is a car park adjacent to the venue which includes spaces for disabled parking and there are also disabled toilet facilities at this venue.	Tuesday 20 June 2pm - 8pm
Canterbury	<b>ABode Canterbury</b> 30-33 High St, Canterbury, CT1 2RX	ABode Canterbury is served by the X15 Diamond bus route service, although there is a walk of 400m from the bus stop to the venue. Disabled parking is available in the library car park opposite the venue. There is a single step into the main reception and wheelchair access is via a portable ramp located at reception. There is step free access within the ground floor where the event is being held and a disabled toilet within the venue.	Thursday 22 June 2pm - 8pm
Ramsgate	<b>Comfort Inn</b> Victoria Parade, Ramsgate, CT11 8DT	Ramsgate harbour is served by the 9, 38 and 39 bus routes and also the Thanet Loop bus service, with a short walk to the venue from the closest bus stop. There is one disabled parking space available at the rear of the venue. There is step free access into the hotel and event room. Please note there is no disabled toilet at this venue.	Saturday 24 June 10am - 2pm



## Sending us your feedback

There are various ways that you can respond to the consultation. All consultation responses must be received by 11.59pm on the last day of the consultation, **23 July 2017**, or we may not be able to take them into account.

- **by post:** Feedback Forms and any other consultation responses can be posted to PO Box 3297, Bristol, BS1 9LL;
- **online:** A copy of the Feedback Form is available to fill in at our consultation website [www.rsp.co.uk](http://www.rsp.co.uk);
- **by email:** Consultation responses can be emailed to [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk); and
- **at the consultation events:** Feedback Forms will be available at the consultation events and can be left at the event or returned by post.

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**Visit:** [www.rsp.co.uk](http://www.rsp.co.uk)



Realising  
Strategic  
Potential

with the reopening  
of Manston Airport

RSP

Contact us at:

Email [manston@communityrelations.co.uk](mailto:manston@communityrelations.co.uk)

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**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**  
**CONSULTATION REPORT APPENDICES**  
**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 8**

**Consultation Leaflet**



RiverOak Strategic Partners

# Manston Airport

## Consultation Leaflet – 2017 Consultation

RiverOak Strategic Partners

### **Manston Airport is a valuable regional and national asset.**

In an increasingly competitive economic climate, the UK cannot afford to lose one of its most long established and strategically significant airports.

Manston Airport is not only rich in history. Through our proposals, the airport can also make a substantial future contribution to the economy and wellbeing of Thanet and the wider country.

### **Our plans for Manston Airport**

RiverOak Strategic Partners ('RiverOak') is proposing to secure the future of this valuable national aviation asset by redeveloping and reopening it as a successful hub for international air freight.

Our plans also involve reinstating scheduled and charter passenger services thereby offering local people an alternative option for international air travel once more. We also plan to attract executive travel and aircraft engineering services as well as retaining and enhancing the much-loved Spitfire & Hurricane Memorial Museum and the RAF Manston History Museum.

#### **In summary, our proposals include:**

- an area for cargo freight operations (able to handle at least 10,000 movements per year);
- a passenger terminal and associated facilities;
- an aircraft teardown and recycling facility;
- a flight training school;
- an improved local highway network;
- a base for at least one passenger carrier;
- a fixed base operation for executive travel; and
- business facilities for aviation related organisations.

### **About the consultation**

RiverOak's plans qualify as a **Nationally Significant Infrastructure Project** as defined by the **Planning Act 2008**.

We are now consulting on our proposals before submitting an application for a Development Consent Order ('DCO') to the Planning Inspectorate. This consultation will fulfil a number of requirements set out in the Act, allowing us to refine our proposals before submitting our application.

**The consultation will run from Monday 12 June 2017 to Sunday 23 July 2017.**

This consultation will provide an opportunity for the public to scrutinise and comment on our proposals, which include more detailed information than was available during our non-statutory consultation in 2016.

This newsletter includes details of where you can find more information about the proposals and how to provide your feedback.

This consultation also forms part of RiverOak's initial engagement on the design of airspace and procedures associated with the airport. As such it is an opportunity for members of the community to highlight any factors which they believe RiverOak should take into account during that design phase. Having taken all such factors into account, the subsequent proposals for flightpaths and airspace will be subject to a separate round of consultation once the DCO application has been made.

# Masterplan for Manston Airport

## **The need for Manston Airport**

The air freight market is ripe for an alternative to the overcrowded London airports system.

Air freight is increasingly bumped off busy passenger aircraft causing delays – leading to more than £2 billion being lost to the UK economy, every year. This figure is estimated to rise to £3.9 Billion by 2050, even with an additional runway at Heathrow.

## **Manston Airport can provide the answer.**

A revived Manston Airport will provide air freight operators with a dedicated facility to meet this unmet demand, easing the considerable road congestion caused by lorries carrying freight through the channel tunnel to and from European airports, improving resilience and boosting economic growth and jobs in Thanet and East Kent.



# A bright future

**Under our proposals, Manston Airport will handle more than 10,000 air cargo movements a year by its sixth year of operation.**

This equates to an average of 14 arrivals and 14 departures a day. By year 20 we envisage the airport handling a little over 26,000 a year, which equates to a little over two flights per hour during normal operating hours.

In the first year of operation it is anticipated that, there will be 850 jobs, from security and passenger handling to engineering and firefighting, on the airport site and a further 5,000 jobs within the region, because of the airport's presence in the economy.

By year 20 it is anticipated that, there will be 4,271 people employed at the airport site and a further 26,055 in the wider regional economy.

# Where to find more information

**Our consultation documents can be found on our website; [www.rsp.co.uk](http://www.rsp.co.uk).**

Printed copies of our Overview Report, which gives a non-technical summary of the key elements of our proposals, will be available to collect at our public exhibitions (see overleaf). Alternatively, please call or email us to request a copy.

Printed copies of consultation documents can also be found in the public libraries below during their normal opening hours. All libraries can be contacted by telephone on 03000 41 31 31 and are closed on public holidays.

**Birchington, Broadstairs, Cliftonville, Deal, Herne Bay, Margate, Minster-in-Thanel, Newington, Ramsgate, Sandwich and Westgate.**

Please note that due to its size the full Preliminary Environmental Information Report is only available at Deal, Margate and Ramsgate Libraries.

## Key

- Site Boundary
- Museum Area
- Proposed Aviation-Related Business Development
- New Airfield Infrastructure
- Existing Airfield assets to be retained
- Main access route to the airport terminal
- Drainage Infrastructure
- Existing Pavement (Potential to breakout & re-use as fill material)



Proposed Manston Airport masterplan



# Consultation events

During the consultation period we will hold a series of events where anyone who is interested in the Project can attend, read the consultation documents, see visual displays of our proposals, talk to our professional team, and leave feedback.

The events will take place as follows:

Location	Address	Time
Herne Bay	<b>The King's Hall</b> Beacon Hill, Herne Bay, CT6 6BA	Wednesday 14 June 2pm - 8pm
Broadstairs	<b>The Pavilion</b> Harbour Street, Broadstairs, CT10 1EU	Thursday 15 June 2pm - 8pm
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## How to feedback

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**To find out more,** please visit [www.rsp.co.uk](http://www.rsp.co.uk)



[www.rsp.co.uk](http://www.rsp.co.uk)

RiverOak Strategic Partners

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**  
**CONSULTATION REPORT APPENDICES**  
**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 9**

**Draft Masterplan for Manston Airport**

# RSP

RiverOak Strategic Partners

## Manston Airport Development Consent Order

**Masterplan**

**June 2017**

For consultation

<b>Scheme Name</b>	Manston Airport DCO
<b>Promoter's Name</b>	RiverOak Strategic Partners
<b>Author</b>	RPS
<b>Document Number</b>	TR020002/SC/03





# 2017 Consultation

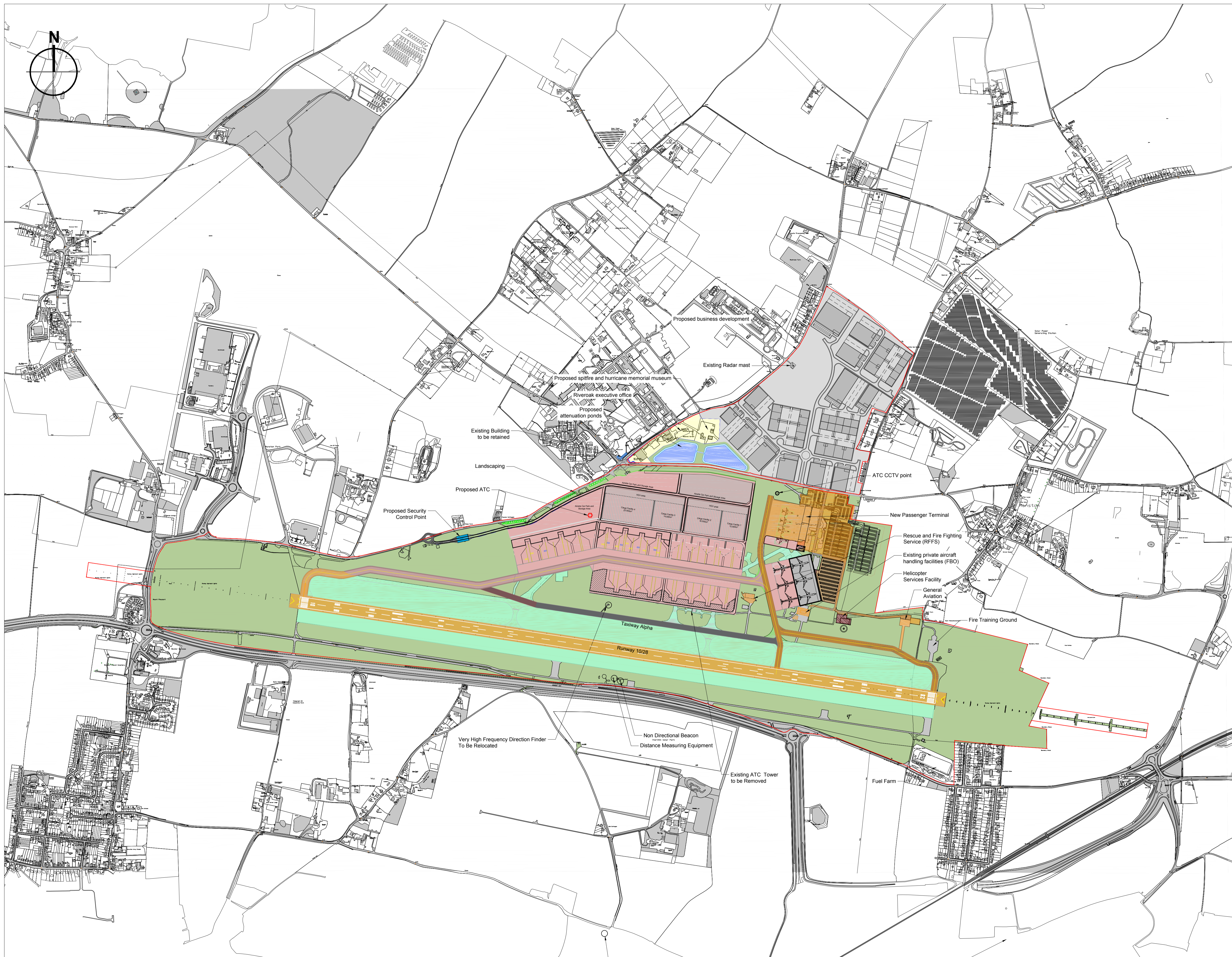
## Suite of Consultation Documents

**1.1** As part of the statutory consultation under section 47 of the Planning Act 2008 a suite of consultation documents relating to the proposal to reopen Manston Airport is available to the public. Together these documents give an overview of the development proposals including information on the potential benefits and impacts of the Project, environmental considerations and the business case. The documents also provide further information on the consultation process and enable the public to submit their feedback.

**1.2** This consultation also forms part of RiverOak's initial engagement on the design of airspace and procedures associated with the airport. As such it is an opportunity for members of the community to highlight any factors which they believe RiverOak should take into account during that design phase. Having taken all such factors into account, the subsequent proposals for flightpaths and airspace will be subject to a separate round of consultation once the DCO application has been made.

**1.3** The suite of consultation documents includes:

1. a Consultation Leaflet giving an overview of the proposals and details of where more information about the Project can be found;
2. a Feedback Form in order to collect responses to the consultation;
3. an Overview Report giving a summary of the proposals including the potential benefits and impacts of the Project, how we propose to mitigate against potential impacts, and a non-technical summary of the Preliminary Environmental Information Report (PEIR);
4. a Preliminary Environmental Information Report (PEIR); containing preliminary information on the likely environmental effects of our proposals as we have ascertained them so far, including noise, transport and air quality, and how we propose to minimise these effects, as well as how we propose to maximise the benefits of the Project;
5. **a draft Masterplan for Manston Airport;**
6. Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth;
7. an Outline Business Case;
8. a Statement of Community Consultation;
9. a Location Plan; and
10. an Interim Consultation Report, setting out the details of the first stage of consultation and how feedback received has been used to help develop the proposals.



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**Legend**

- Site boundary
- New airfield infrastructure
- Drainage infrastructure
- Museum area
- Existing airfield assets to be retained
- Existing pavement (Potential to breakout & re-use as fill material)
- ⊕ Proposed ATC tower
- ATC CCTV point

P05	VHF direction finder note amended	RS	CJ	26.05.17
P04	Notes and Legend Updated	TAW	CJ	11.05.17
P03	Figure Number Added	TAW	CJ	28.04.17
P02	Minor amendments to general arrangement.	CM	CJ	08.03.17
P01	First Issue.	BJPF	CJ	20.02.17
Rev	Description	By	Ckd	Date



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Project Manston Airport Masterplan

Title Site Layout Plan

Status	Scale	Date Created
Preliminary	1:7500 @A1	03/06/2016
Project Leader	Drawn By	Checked by
GD	JLE	GD

Document Number	Revision	Subsidiary
NK018417 - RPS-MSE-XX-DR-C-1100	P05	S0

**THE MANSTON AIRPORT DEVELOPMENT CONSENT ORDER**

**CONSULTATION REPORT APPENDICES**

**DOCUMENT REFERENCE TR020002/APP/6.2**

**Appendix 10**

**Manston Airport - a Regional and National Asset, Volumes I-IV; an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth**



RiverOak Strategic Partners

# Manston Airport Development Consent Order

**Manston Airport - a Regional and National Asset, Volumes I-IV;  
an analysis of air freight capacity limitations and constraints in the South East and Manston's ability to address these and provide for future growth;  
June 2017  
For consultation**

<b>Scheme Name</b>	Manston Airport DCO
<b>Promoter's Name</b>	RiverOak Strategic Partners
<b>Author</b>	Azimuth Associates
<b>Document Number</b>	TR020002/SC/04





# 2017 Consultation

## Suite of Consultation Documents

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**MANSTON AIRPORT:  
A NATIONAL AND REGIONAL  
AVIATION ASSET**

**VOLUME I**  
Demand in the south east of the UK

MARCH 2017

**Prepared for:**

RiverOak Strategic Partners

**Prepared by:**

Sally Dixon MBA PhD MRAsS  
Azimuth Associates



**Disclaimer**

Whilst every effort has been made to ensure the accuracy of the material in this document, neither RiverOak Strategic Partners nor the report's author will be liable for any loss or damages incurred through the use of the report.

**Authorship and acknowledgements:**

This report has been produced by Dr Sally Dixon, an independent aviation and business research consultant. The author wishes to thank all those who contributed to the research. However, the views expressed herein are those of the author only and are based upon independent research by her.

## Executive Summary

This report aims to answer three key questions.

1. Does the UK require additional airport capacity to meet its political, economic, and social aims?
2. Should this capacity be located in the South East of England?
3. Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?

Drawing on research from a wide range of contributors, this report describes the pressing need for additional airport capacity in the South East of England. Indeed, the announcement of the Government's support for a third runway at Heathrow confirms this view. A public consultation will now commence, with MPs voting on the Government's decision in the winter of 2017-18. As such, the new runway at Heathrow is not likely to be operational until at least 2030<sup>1</sup> and may be subject to further delays due to the complexity of such a project, its controversial nature, and potential legal challenges.

### UK airport infrastructure

The aviation sector is of vital importance to the UK, contributing £52 billion (3.4%) to UK GDP and supporting 961,000 jobs (Oxford Economics, 2015, p. 4). In 2014, the total value of tradable goods carried through UK airports exceeded £140 billion (Airports Commission, 2015, p. 73). The importance of air travel is forecast to continue to grow, with 50% more flights in 2035 than there were in 2012, from around 9 million per year to 14.4 million (Eurocontrol, 2013). The freighter fleet is set to more than double over the next 20 years (Boeing, 2014).

However, airport capacity is a problem not just in the UK but also in Europe, where capacity is forecast to increase by 17% to 2035 but leave a shortfall of around nine runways' worth of capacity (Eurocontrol, 2013). By 2035, European airports will be unable to accommodate around two million flights due to capacity shortages leading to a loss of between 434,000 and 818,000 jobs and between €28 billion and 52 billion in GDP (EC, 2015).

In the UK, non-EU trade accounts for just under half of all trade and 35% of these goods are air freighted. Both figures could increase following the UK's withdrawal from the EU (Oxford Economics, 2013, p. 5). The Airports Commission forecast that, over a 60-year time frame without additional capacity, there would be a £21 to £23 billion cost to users and providers of UK airport infrastructure and £30 to £45 billion in costs to the wider economy (Airports Commission, 2015, p. 17).

### Demand in the South East of England

It is clear that the aviation market prefers the South East, with forecasts showing that by 2050, the value of air cargo lost to London due to capacity constraints would equate to £106 billion per annum with net national losses of around £3.9 billion per annum (Oxford Economics, 2013, p. 5). The London airports facilitate 76% of the UK's air freight (Oxford Economics, 2013, p. 3) and all London airports will be at capacity by 2030 (Airports Commission, 2013, p. 20). The number of additional dedicated freighters

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<sup>1</sup> 8<sup>th</sup> February 2016, The Transport Committee heard evidence from the Secretary of State for Transport on the Government's plans for airport expansion in the South East

at London airports is forecast to be 53,954 with no additional runways, amounting to some 1.5 million tonnes of freight (Transport for London, 2013, p. 7). Indeed, without extra capacity in the South East, 2.1 million tonnes of freight, some 100,000<sup>2</sup> truckloads, would be diverted elsewhere, mainly to Northern European airports (York Aviation, 2015, p. 19), putting huge pressure on the UK's road network and the Channel crossings.

### **Manston Airport**

Manston Airport is located in the South East where aviation industry demand is highest and most constrained. The airport has a long runway, an ideal airspace location, benefits from easy surface access to London and the rest of the UK, is located close to mainland Europe, and, with RiverOak's proposed investment, can provide rapid handling and turnaround times for air freight. The airport would provide almost immediate relief to the pressing situation that is causing £2bn in potential trade to be lost to the South East each year we remain without additional runway capacity (Centre for Business Research, 2016).

The DCO process requires RiverOak to provide evidence that shows Manston Airport can relieve pressure on the UK network by handling at least 10,000 freighter movements per year. Transport for London specifically mentions Manston, saying the airport can take 14,000 movements per annum and relieve other South East airports (TfL, 2013, p. 7). Therefore, whilst in the short to medium-term Manston will be vital as an operational airport, even in the longer term, after the opening of Heathrow's third runway and to 2050, Manston provides the only airport infrastructure in the South East that can provide the capacity needed to support the overspill predicted within all timeframes.

### **Conclusion**

There can be little doubt that, in an increasingly competitive economic climate, the UK cannot afford to lose one of its long-serving and strategically significant airports. This report describes the pent up demand in the South East and shows that Manston Airport, with the high level of investment proposed by RiverOak, its geographic location and airspace position, is capable of handling air freight at least to the volumes required by the DCO process. Indeed, this report demonstrates that Manston is a valuable regional and national asset, capable of providing infrastructure badly needed by the UK in the short, medium and long-term, playing a role in helping Britain's connectedness and trade with the rest of the world, and of making a substantial contribution to the future economic and social well-being of the Nation.

---

<sup>2</sup> See footnote 10 on page 12 for an explanation of this calculation

## Definitions and abbreviations

ACI	Airports Council International
Air freight	The carriage of goods by aircraft
ATM	Air Transport Movement and/or Air Traffic Movement
BAA	Formally the British Airports Authority
Backload	The transportation of cargo on a return trip to the originating airport
Belly-freight	Cargo stowed under the main deck of a passenger aircraft
CAA	Civil Aviation Authority
Cargo	The term cargo and freight are used interchangeably in this report and refer to goods carried by road, sea or air
Consolidator	A person or company that combines small volumes of commodities from different originators so they can be shipped together and who usually owns the aircraft used for transport
CPO	Compulsory Purchase Order
DCO	Development Consent Order
Dedicated carrier	An aircraft that transports only freight (not passengers)
DfT	Department for Transport
EASA	European Aviation Safety Agency
EIA	Environmental Impact Assessment
EU	European Union
EUROCONTROL	European Organisation for the Safety of Air Navigation
FAA	Federal Aviation Administration
Freight	The term freight and cargo are used interchangeably in this report and refer to goods carried by road, sea or air
Freight forwarder	A person or company that organises the shipment of commodities from an originator (manufacturer, producer, etc.) to a destination (customer, etc.) but generally does not own the aircraft used in the transport
GVA	Gross Value Added
ICAO	International Civil Aviation Organisation
ICT	Information and communications technology
JIT	Just-in-time, a manufacturing system that allows materials or components to be delivered just as they are required in the manufacturing process, thereby minimising storage costs
LCC	Low cost carrier
LCY	London City Airport
LGW	London Gatwick Airport
LHR	London Heathrow Airport
Long haul	No generally agreed definition as 'long' or 'short' is subjective. In Europe, a flight taking more than four hours to complete and/or originating/destined outside Europe is considered long haul
Short haul	As above. Short haul in Europe generally indicates a flight within Europe so taking around four hours or less to complete
STN	Stansted Airport
TfL	Transport for London
UK	United Kingdom
USA	United States of America
WTO	World Trade Organization





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# 1 Introduction

## 1.1 Background and rationale

1.1.1 For many years the UK has struggled to resolve the issues surrounding airport capacity expansion. Indeed, over more than seven decades, successive governments have been unable to define a national framework for the UK's airport infrastructure. Privatisation of the Nation's airports, which followed the 1986 Airports Act, made this task more difficult, with both public and private sector issues now needing to be resolved. As a global trading nation, the UK relies on the ability to import and export goods. Our domestic and international transport infrastructure, including airports, railways, seaports and roads, must therefore be fit for purpose and with sufficient capacity if the Country is to continue to prosper in a highly connected world.

1.1.2 To help speed the process of approving major infrastructure projects including airports, the Government introduced the 2008 Planning Act. This was followed by the appointment of the Airports Commission under Sir Howard Davies who was tasked with recommending a solution to the UK's airport capacity issues. In July 2015 the Airports Commission report was published and on the 25<sup>th</sup> October 2016, in line with the Airports Commission's recommendation, the Government decided to back construction of a third runway at London's Heathrow Airport. However, the Government is not expecting extra capacity to be available until at least 2030<sup>3</sup>. This means the UK and the South East in particular, has some years to wait before airport congestion is relieved. Even when this is in place, there will be need for additional capacity particularly for freight. Without immediate capacity expansion, delivered responsibly, the forecasts described in this report show that the UK and particularly the South East of England will continue to miss out on the full social and economic benefits they could derive from aviation.

1.1.3 This document therefore makes the case for Manston Airport to be reinstated as a freight-focused airport. Its re-opening would ease the pressure on existing infrastructure in the South East of England and allow some of the currently unmet demand to be handled now and in the future. Although the Secretary of State for Transport, Chris Grayling, has confirmed his on-going support for Manston<sup>4</sup>, the airport, with its 2,742-metre runway, has been closed since May 2014. Purchased by Ann Gloag, co-founder of Stagecoach, the intention of the current owner is to secure a change of use from airport to a mixed-use development called Stone Hill Park. This development would include 2,500 homes in the first instance, a business park, and sports facilities. Such change of use would forever lose the airport facility and the important role it can play in the success of the local, regional and national economies.

## 1.2 RiverOak's vision for Manston Airport

1.2.1 RiverOak has a clear vision for the future of Manston Airport: To revive Manston as a successful freight-focused airport with some passenger operations, aircraft maintenance and repair, and the creation of a hub for aviation-related commercial opportunities. RiverOak, who specialise in identifying profitable market opportunities,

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<sup>3</sup> 8<sup>th</sup> February 2016, The Transport Committee hears evidence from the Secretary of State for Transport on the Government's plans for airport expansion in the South East.  
<http://www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/news-parliament-2015/airport-expansion-ev-session-15-16/> at 15.07.35

<sup>4</sup> HC Deb 15 Sep 2016 vol. 614 c OA1020

has identified the substantial need for additional and specialised airport capacity for dedicated freighters in the southeast of England. The only cargo hubs in the UK are East Midlands and Stansted airports, both of which focus on the integrator market. The UK needs a new hub for dedicated freighters, providing them with rapid turnaround times and the specialist security clearing ability that is currently absent at other UK airports.

1.2.2 The ideal location for this is close to the main market in the South East. RiverOak's long-term plan is to integrate Manston into the UK's airport network, effectively providing Heathrow with its fourth runway primarily dedicated to freighter cargo. Mindful of Manston's long and distinguished history, RiverOak will maintain its heritage and enhance the economic benefits to the region by creating a wide range of aviation-related employment opportunities as well as training and education to meet the necessary skills requirements.

### **1.3 Aim and objectives of the report**

1.3.1 The aim of this report is to consider whether there is a compelling case in the public interest to create a freight-focused facility at Manston Airport. The decision about whether Manston Airport should be returned to operational use hinges on three key questions:

1. Does the UK require additional airport capacity in order to meet its political, economic, and social aims?
2. Should this additional capacity be located in the South East of England?
3. Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?

This report demonstrates that the answer to each of the above questions is overwhelmingly yes.

1.3.2 The report summarises the available statistical data to underpin the proposal and support business planning and development at Manston Airport. There are a number of other objectives set out for this work and in particular the results will:

- Provide the information required to support the DCO application
- Inform the Manston Airport business case and master plans
- Inform Manston's marketing strategy
- Initiate stakeholder consultation
- Continue to inform and gain support from key stakeholders
- Provide a platform for lobbying Government and industry organisations
- Play a key role in forming Government policy for air freight in the UK

### **1.4 The aims of the DCO**

1.4.1 A Development Consent Order (DCO) will be sought by RiverOak to secure the rights and consents necessary for Manston's re-development as an airport as required by the Planning Act 2008. This means that, at the end of a process overseen by HM Government's Planning Inspectorate, the Secretary of State at the Department for Transport will decide the future of Manston Airport.

1.4.2 The Development Consent Order (DCO) process was established by the Planning Act 2008, as amended by the Localism Act of 2011 and the Infrastructure Acts of 2013 and 2015. This procedure was introduced to streamline the decision-making process for nationally significant infrastructure projects (NSIPs). One of the main aims of the DCO (Development Consent Order) is to provide a one-stop shop for those promoting major infrastructure projects<sup>5</sup>. There are two main pre-conditions for the inclusion of a CPO within a DCO.

*“The first criterion is that the land is required for the development to which the development consent relates. For this to be met, the promoter should be able to demonstrate to the satisfaction of the decision-maker that the land in question is needed for the development for which consent is sought. The decision-maker should be satisfied, in this regard, that the land to be acquired is no more than is reasonably required for the purposes of the development.”*

(Guidance Related to Procedures for Compulsory Acquisition (DCLG), February 2010, issued under section 124 PA 2008, paragraph 24)

1.4.3 The second pre-condition is that there is a compelling case in the public interest for the land to be acquired compulsorily. Part 3 of the 2008 Act sets out thresholds for infrastructure development to be considered nationally significant. For airports:

*“The construction of a new air passenger transport services for at least 10 million passengers per year, or air cargo transport services for at least 10,000 air transport movements of cargo aircraft per year (or if alteration to existing airports would increase passenger numbers or cargo aircraft movements by these number)”* (Smith, 2015, page 4).

## 1.5 Report structure

1.5.1 Following this introductory section, the report commences with an overview of the UK’s airport infrastructure, particularly considering national and South East capacity issues. This section is followed by a description of the UK’s airport capacity issues relating specifically to air freight. Next, the report considers the capacity of the main UK air freight airports as well as airfields in the South East that may provide the possibility of additional capacity in the short- to medium-term to help alleviate the pent up demand for air freight to and from the UK.

1.5.2 These sections are followed by an outline of the political context in which decisions about airport capacity are made. This section also looks at the potential impact of BREXIT on UK aviation. The report then looks at Manston Airport specifically and describes its potential as a freight-focused airport. The penultimate section outlines the external issues and opportunities that may impact on the future of Manston Airport. The report concludes with a summary of the findings in relation to the three questions posed and recommends that the Planning Inspectorate, through the DCO process instigated by RiverOak, reinstate Manston as an operational airport.

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<sup>5</sup> Neil Cameron QC, Landmark Chambers available from [http://www.landmarkchambers.co.uk/userfiles/documents/resources/Development\\_Consent\\_Orders\\_-and-\\_Compulsory\\_Purchase\\_-\\_NC.pdf](http://www.landmarkchambers.co.uk/userfiles/documents/resources/Development_Consent_Orders_-and-_Compulsory_Purchase_-_NC.pdf)

## 2 UK airport capacity

2.0.1 The huge growth in aviation over the past eight decades has been at the focus of a wide range of contrasting arguments about when, where and if airports should be built or expanded. Since the 1920s and '30s, when aerodromes were owned privately or by local authorities or municipalities, airports have been nationalised, denationalised and privatised. A wide range of options for the expansion of existing airports and for the construction at sites mainly in the Thames Estuary have been driven by the 'predict and provide' approach to aviation of successive governments. However, on-going and often unresolved issues persist, providing politicians with a choice to make: Should they favour aviation's links to economic growth and job creation or should they preference concerns for the environmental well-being of local people and the planet generally.

### 2.1 Capacity in the South East

2.1.1 Figure 1 shows the location of the UK's airports, with the largest concentration being in the South East of the Country.

Figure 1 Map showing the location of UK airports



Source: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/450387/avi0109.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/450387/avi0109.pdf)

2.1.2 The most recent and widely circulated documents that describe the UK's airport capacity situation are those used by the Airports Commission in its 2015 report. However, a number of other studies (see for example York Aviation, 2015; Oxford Economics, 2013, 2015) also point to the urgent need for airport capacity in the UK.

2.1.3 The Airports Commission reviewed all available information and consulted widely and arrived at the conclusion that:

*“While London remains a well-connected city its airports are showing unambiguous signs of strain. Heathrow is operating at capacity, and Gatwick is quickly approaching the same point. There is still spare capacity elsewhere in the South East for point-to-point and especially low-cost flights, but with no availability at its main hub airport London is beginning to find that new routes to important long-haul destinations are set up elsewhere in Europe rather than in the UK. Other UK airports are increasingly squeezed out of Heathrow, with passengers from the nations and regions obliged to transfer through other European airports, or Middle Eastern hubs. That costs them time and money, and is off-putting to inward investors. Without action soon the position will continue to deteriorate, and the entire London system will be full by 2040.”* (Airports Commission, 2015, p. 3)

2.1.4 Indeed, this lack of airport capacity is losing the UK considerable potential trade, particularly with non-EU countries. Figures compiled by the Centre for Economics and Business Research (CEBR, 2016) for the Let Britain Fly campaign show that in 2015 the UK missed out on at least £9.5bn in potential trade. Without airport development, CEBR predicts that losses will continue to accumulate at the rate of £1.1 million every hour. For the South East, these losses due to lack of runway capacity amount to £2bn in potential trade each year.

## 2.2 Aviation's contribution to the economy

2.2.1 Oxford Economics (2015, p. 4) calculate that the aviation sector contributes £52 billion or 3.4% to UK GDP and supports 961,000 jobs. In terms of the value of the UK air freight industry, Oxford Economics estimate that airlines earn around £3.1 billion from shippers annually, carrying 2.3 million tonnes to, from, and within the UK (*ibid*, p. 5). Indeed, the Airports Commission says that:

*“[A]viation supports British manufacturing, carrying high value exports, particularly to emerging markets, and helping to secure the position of UK based manufacturers in complex global supply chains. Today around 40% of the UK's trade with economies outside the EU by value is transported by air and in 2014 alone, the total value of tradable goods carried through UK airports exceeded £140 billion.”* (Airports Commission, 2015, p. 73)

2.2.2 Whilst the European aviation market is becoming more mature it is nonetheless predicted that there will be 50% more flights in 2035 than there were in 2012, from around 9 million per year to 14.4 million (Eurocontrol, 2013). However, across Europe, it is estimated that airport capacity will increase by just 17% by 2035, leaving a shortfall of around nine runways' worth of capacity (*ibid*, 2013). It is, as Eurocontrol say, essential therefore that we make the best possible use of existing infrastructure.



2.2.3 From the advent of commercial aviation, government policy has been to meet rather than to manage demand for airport capacity (Humphreys *et al*, 2007). This strategy is derived from the close link between a country's economic status in world rankings (including attracting inward investment and creating jobs) and their global connectivity. However, issues about where to locate new airport infrastructure are dogged by a political conundrum: Politicians want to win elections, a desire that may hinge on which side of the airport development debate they campaign. For most politicians with airports within their constituency, there are considerable anti-airport development lobbies. However, the people of Thanet, where Manston Airport is located, are largely in favour of the re-opening and development of the airport (see section 7.1 for further details).

2.2.4 One of the justifications for the privatisation of the UK's airports was a desire to increase competition between UK airports, particularly the London airports. This competition is seen as essential if customers, both passengers and freight, are to benefit in terms of service and pricing. However, capacity constraints defeat the free market ideal, putting upward pressure on fares and creating significant barriers to entry for new players who are unable to acquire landing and take-off slots at main airports (Airports Commission, 2015).

## 3 Air freight capacity

3.0.1 2014 marked 100 years since the birth of commercial aviation. This century of flight has transformed the way we live and how and with whom we conduct business<sup>6</sup>. The history of air freight has always been entwined with that of passenger aviation, with mail the first cargo transported by air. However, after the Second World War, airmail gave way to the age of air freight. The use of air freight was prompted by a general worldwide trend towards globalisation, a change in management practices including just-in-time (JIT) and made-to-order models, trade and economic liberalisation between countries, and other political changes (Ishutkina, 2009) including open skies agreements.

### 3.1 The air freight market

3.1.1 Aviation makes an enormous impact on our economy, creating jobs and contributing to GDP (Oxford Economics, 2013). Indeed, most studies conclude that world air freight traffic is strongly correlated to GDP (e.g. Boeing, 2014) and that world merchandise trade is a component of GDP, is an important measure of economic performance (Boeing, 2014, p. 2), and that transport infrastructure contributes to economic development (Ishutkina, 2009; Prud'homme, 2005).

*“In 2014, airlines transported 51.3 million metric tons of goods, representing more than 35% of global trade by value . . . equivalent to USD6.8 trillion worth of goods annually, or USD18.6 billion worth of goods every day.” (IATA, 2015, p. 4)*

3.1.2 Sales (2013) points to several major influences on the air freight business: global recessions, which negatively affect the volume of goods being made, bought and shipped; and fuel prices, which affect transport costs. Fuel prices and volatility have led to the scrapping of many older uneconomical aircraft and to the acquisition of more fuel-efficient, widebody aircraft such as the B777, B747-8 and the A350. The use of these aircraft allows passenger carriers to transport large amounts of bellyhold cargo and changed the face of the air freight market. As Sales says, *“Despite these difficulties, the air freight business manages to remain robust and is working harder to find better and more cost-efficient ways of overcoming these obstacles”* (Sales, 2013, p. 41).

3.1.3 Boeing’s traffic and market outlook describes an air cargo market recovery that began in 2014. Their market outlook 2016-2035 (Boeing, 2016a) forecasts air cargo traffic, measured in revenue tonne-kilometers, at 4.2% although there are differences between the forecasts for regional pairs. For example, Asia-Europe is forecast grow during the period to 2035 by 4.6% (Boeing, 2016b, p. 16). The Airbus forecast is for growth at 4% globally (Airbus, 2016). The Boeing and Airbus forecasts are based on the opinions of experts who summarise the world’s major air trade markets and identify key trends.

3.1.4 With demand for air cargo services set to more than double, the number of aircraft in the freighter fleet is expected to increase by more than half over the next 20 years. Whilst a large proportion of air freight is currently carried as belly-freight in passenger aircraft, particularly in the UK, Boeing says that:

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<sup>6</sup> <http://www.flying100years.com>

*“Dedicated freighter services nonetheless offer significant advantages, including more predictable and reliable volumes and schedules, greater control over timing and routing, and a variety of services for outsize cargo, hazardous materials, and other types of cargo that cannot be accommodated in passenger airplanes. In addition, range restrictions on fully loaded passenger flights and the limited number of passenger frequencies serving high-demand cargo markets make freighters essential where both long-range and frequent service are required.” (Boeing, 2014, p. 3)*

3.1.5 Despite the pressures on the air freight market, the EU predict that by 2035, European airports will be unable to accommodate around two million flights due to capacity shortages. This will lead to a loss of between 434,000 and 818,000 EU jobs and between €28 billion and 52 billion in EU GDP (EC, 2015, p. 7). Air freight flights enable the flow of goods between economies. This mode of transport relieves surface infrastructure deficiencies (Gourdin, 2006) and enables access to markets for commodities where speed adds value, provides a different distribution mechanism (such as next day delivery), enables the use of efficient production methods such as JIT manufacturing, and ensures high value machinery and equipment maximise their capital value (Ishutkina, 2009, p. 114).

## 3.2 Air freight in the UK

3.2.1 By 2000, UK air freight had become constrained, particularly at the London airports (DfT, 2003; Oxford Economics, 2013) and aviation infrastructure is critical to the air freight industry. An EU rating of the quality of air transport infrastructure rated the UK 5.52 and ranked 12<sup>th</sup> out of the 28 EU countries<sup>7</sup>. This rating/ranking is based on a survey by the World Economic Forum using a scale where 1 is extremely underdeveloped and 7 is extensive and efficient. It seems that capacity constraints are reducing competition and the desire to strive to provide the highest quality service. This renders the UK less attractive and competitive than other European airports. London’s six airports, Heathrow, Gatwick, Stansted, Luton, London City and Southend facilitate 76% of the UK’s air cargo. Providing sufficient aviation capacity to meet future air freight demand is, say Oxford Economics (2013, p. 8), the first step to encouraging future trade growth. This will become ever more critical as the UK commences its exit from the EU.

3.2.2 By weight, the UK imports (57% or around 1.3 million tonnes) more than it exports (43% or approximately 1 million tonnes) (DfT, 2009, p. 9). A large proportion of exports, by both weight and value, include machinery and transport equipment. Imports are more mixed across all types of commodities when measured by weight but by value, machinery and equipment dominate. The US and Asia are the primary markets for UK air freight for both imports and exports (*ibid*, p. 9).

3.2.3 Transport for London (2013) points to the lack of correlation between freight tonnage handled and the number of scheduled departures. The main reason given by the authors of the TfL work is the relative importance of bellyhold freight and the presence of an active integrator. Their report also highlights the lack of a central means by which to calculate how much freight is uploaded or offloaded at any particular airport. The mix of belly-freight and dedicated freighters makes the relationship between departures and air freight tonnage very difficult to approximate. This means that predicting freight

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<sup>7</sup> [http://ec.europa.eu/transport/facts-fundings/scoreboard/countries/united-kingdom/investments-infrastructure/index\\_en.htm](http://ec.europa.eu/transport/facts-fundings/scoreboard/countries/united-kingdom/investments-infrastructure/index_en.htm)

movements and tonnage at an airport level is difficult and contentious. Having a common database of figures and an agreed method would help considerably.

3.2.4 A key point raised from the data gathered by TfL (2013) for the Thames Estuary airport is that most freighters do not operate a point-to-point service (known in shipping as non-liner or tramp shipping). Instead they 'hop' from airport to airport, picking up and setting down cargo, as demand requires. Many freight operations move between more than one of the main European freight airports as well as a number of overseas airports. Whilst some freighters do operate simple round trips, the data shows that inbound patterns do not necessarily mirror outbound patterns, providing flexibility to add new pick up/drop off points as the market dictates.

3.2.5 The busiest UK airport for air freight is London's Heathrow, where most freight is carried in the hold of passenger aircraft. For freight-only aircraft, Stansted and East Midlands currently dominate (DfT, 2009). Aircraft-to-aircraft movements account for around 15% of air freight traffic in the UK, mainly through Heathrow (*ibid*). Three of the four largest integrators, DHL, UPS and TNT, have a strong presence at East Midlands with offices at Heathrow, Stansted and other airports. Fedex's UK base is Stansted. Table 1 shows the 2015 figures for passengers and freight at the London airports.

**Table 1 2015 South East UK Airport operations**

Airport	Passenger	%	Tonnes freight	%	ATM	%
Heathrow	74,985,748	48%	1,496,551	83%	474,087	42%
Stansted	22,519,178	15%	207,996	11%	168,629	15%
Gatwick	40,269,087	26%	73,371	4%	267,760	24%
Luton	12,263,505	8%	28,008	2%	114,083	10%
London City	4,319,301	2%	24		84,753	7%
Southend	900,648	1%	5		23,538	2%
<b>Total</b>	<b>155,257,467</b>	<b>100%</b>	<b>1,805,955</b>	<b>100%</b>	<b>1,132,850</b>	<b>100%</b>

Source: CAA Airport Data, 2015<sup>8</sup>

3.2.6 In terms of mail carried through UK airports, the Royal Mail dominates the market. Their strategy is to wet lease aircraft (hire aircraft with flight crew) and take space on other flights through integrators. In 2015, 206,000 tonnes of mail were carried through UK airports, mainly Heathrow (95,000 tonnes) on scheduled flights (CAA Table 02.2, 2015<sup>9</sup>).

### 3.3 The UK's competitive position

3.3.1 On the 25<sup>th</sup> October 2016, the Government decided their preferred option for the future direction of air freight and passenger travel in the UK. Several options were considered, including a new airport on the Isle of Grain or the Outer Estuary. This proposal was discounted, leaving only a third runway at Heathrow or a second at Gatwick on the table. Heathrow was the preference of the Airports Commission, now supported by Government under Theresa May. However, given the complexity of the project, its controversial nature and the potential for legal challenges, new infrastructure is unlikely to be operational within the next decade or more. This leaves

<sup>8</sup> <https://www.caa.co.uk/Data-and-analysis/UK-aviation-market/Airports/Datasets/UK-Airport-data/Airport-data-2015-11/>

<sup>9</sup> As above

the air freight industry and those who depend upon it, to operate under constrained conditions unless more use of existing infrastructure can be made. Moreover, even once a third runway is in place, and into the long-term there will still remain considerable capacity constraints in relation to freight. Since there is a clear case for additional freight capacity in the UK it seems undeniable that there is a compelling case, in the public interest, to consider a freight-focused facility at Manston Airport. A facility that already exists at Manston and, with appropriate investment, can be brought back into use relatively quickly.

3.3.2 The UK's airports operate in a global marketplace, competing against airports in northern Europe. Indeed, TfL describes their concerns over the role of Germany and the Low Countries acting as the major freight centres in Western Europe. Their 2013 report says:

*“These airports have developed major and specialist air freight roles, with freight being trucked from all over Europe to feed these freight hubs. The integration of trucking with air freight should not be overlooked, even within the UK.”* (TfL, 2013, p. 3)

3.3.3 These concerns seem justified when the UK's airports are compared to those in the rest of Europe. Table 2 shows the total air transport in freight tonnes and the number of freighter movements at the main European freight airports in 2014. The figures highlight the reliance on belly-freight at most of the UK's airports. They also point to the importance of the relationship between freight handled and the presence of integrators located at the airport. For example, East Midlands Airport handles a relatively small tonnage of freight compared to Heathrow but much of this is carried on dedicated freighters. East Midlands is the UK's hub for DHL and UPS and supports operations for TNT and Royal Mail. As the UK progresses with negotiations to exit the EU, the Country will find it advantageous to have sufficient capacity at airports that can handle dedicated freighters, without the need to truck to airports in mainland Europe.

**Table 2 Freighter movements at the main European airports**

2014 figures	Freight tonnes	Passengers (in '000s)	Freighters (in '000s)
Leipzig	904,110	*2,331	33
Paris CDG	1,475,817	63,654	31
Cologne	738,430	*9,451	26
Liege	581,802	*302	24
<b>East Midlands</b>	<b>307,242</b>	<b>**4,507</b>	<b>22</b>
Frankfurt	2,131,585	59,414	21
Amsterdam	1,670,671	54,957	16
Brussels	408,045	21,754	12
Luxembourg	707,150	2,434	10
Milan MXP	469,658	18,670	9
Madrid	376,827	41,541	9
<b>Stansted</b>	<b>225,851</b>	<b>19,934</b>	<b>9</b>
Helsinki	187,419	15,945	8
Copenhagen	200,054	25,532	7
Vienna	210,277	22,473	5
Munich	309,148	39,571	4
Dublin	127,448	21,686	4
<b>Heathrow</b>	<b>1,585,885</b>	<b>73,371</b>	<b>2</b>
Rome	143,008	38,289	2
Frankfurt Hahn	126,916		2
<b>Luton</b>	<b>**27,414</b>	<b>10,482</b>	<b>**2</b>
<b>Manchester</b>	<b>**93,466</b>	<b>21,950</b>	<b>**1</b>
<b>Gatwick</b>	<b>**88,508</b>	<b>38,094</b>	<b>**0</b>
Zurich	*300,474	*25,427	

Source: [http://ec.europa.eu/eurostat/statistics-explained/index.php/Air\\_transport\\_statistics#Further\\_Eurostat\\_information\\_except\\_those\\_marked](http://ec.europa.eu/eurostat/statistics-explained/index.php/Air_transport_statistics#Further_Eurostat_information_except_those_marked):

\* Airports' websites and

\*\* CAA statistics

### 3.4 The need for air freight capacity in the South East

3.4.1 Quantifying the cost of existing airport capacity constraints, the Airports Commission estimates that over a 60-year time frame and without additional capacity, there would be a £21 to £23 billion cost to users and providers of airport infrastructure and between £30 to £45 billion to the wider economy (Airports Commission, 2015, p. 17). In terms of cargo, Oxford Economics (2013) forecasts suggest that, "by 2050, the value of air cargo lost to London due to capacity constraints would equate to £106 billion per annum" (Oxford Economics, 2013, p. 5). They also calculate that in the same timeframe, "net national losses due to airfreight capacity constraints could equate to £3.9 billion per annum." (*ibid*, p. 5)

3.4.2 These figures were calculated prior to the referendum on the UK's exit from the EU. In 2012, non-EU trade accounted for just under half of all UK trade, with around 35% of these goods being air freighted (Oxford Economics, 2013, p. 5). If the proportion of trade changes, with a greater reliance on non-EU activity after the UK's withdrawal from the EU, the demand for air freight is likely to increase.

3.4.3 The London airports facilitate 76% of the UK's air freight (Oxford Economics, 2013, p. 3). However, the Airports Commission shows that all London airports will be at capacity by 2030. London's Heathrow and Gatwick are already constrained and London City is expected to reach capacity by 2025 with Luton and Stansted following closely behind (Airports Commission, 2013, p. 20). What the Airports Commission makes clear is that, "*the demand for landing slots in London and the South East of England will continue to grow*" (2015, p. 54). Whilst some commentators criticised the Commission's focus on capacity in London and the South East, the Commission believes the strength of the London aviation system is crucial to the Country as a whole.

3.4.4 Boris Johnson, the then Mayor of London, proposed construction of a new airport in the Thames Estuary, an idea originally mooted in the 1950s. Johnson believes that locating an airport to the east of London and away from the major conurbations of the capital would have significant benefits including reducing the environmental and security problems of aircraft over-flying London. His aviation team at Transport for London (TfL) prepared a forecast for the airport, which estimates that, without new infrastructure, London airports would be fully utilised by passenger aircraft movements, constraining the potential for freighter operations (TfL, 2013).

3.4.5 The TfL forecasts shows volumes of freighter activity to 2050 at the London airports against three scenarios; infrastructure as currently exists (two runways at Heathrow, and one each at Gatwick and Stansted), an increase to two runways at Gatwick and Stansted (2x2x2), and with a new hub airport (this work was carried out to support the Thames Estuary proposal). TfL predicts that by 2050 the London area would require an additional 54,000 freighter movements (some 1.7 million tonnes of freight) per year to meet demand if no additional airport infrastructure is provided (TfL, 2013, p. 7). This demand is additional to predictions for belly-freight on passenger airlines. The report states that, "***around 14,000 freighters a years could still be accommodated in the vicinity of London by using capacity at airports such as Manston, which already handles some long haul freighters***" (*ibid*, p. 7).

3.4.6 Even with additional runways at Gatwick and Stansted, the TfL predictions show that 33,340 additional freighter movements would still be required. The TfL forecasts do not cover the scenario where a third runway was permitted at Heathrow (since the Conservative Government at the time had insisted this would not be considered). However, it is clear that, if freighter movements in the UK would be restricted with two additional runways (one at Gatwick and one at Stansted), with only one runway at Heathrow the situation for freighters is not improved such that it would negate the need for additional capacity in the South East. Indeed, York Aviation predicts that, even with the third runway, 45,000 freighter movements will be required (York Aviation, 2015, p. 19). This report considers where freighter aircraft could be handled in Section 4, which concludes that an operational Manston Airport is the only viable option.

3.4.7 However, if the UK is unable to meet demand, the TfL report says that it is likely freight would be trucked to the continental hubs. This finding is in line with York Aviation's work (2015) for the Freight Transport Association and TfL, which shows that some 2.1 million tonnes of freight would be diverted elsewhere by 2050 (York Aviation, 2015, p. 19). If moved by road to European airports, this would be equivalent to around

100,000 truckloads per year in addition to current movements<sup>10</sup>. Even with additional runways at Heathrow or Gatwick the volume of freight to be diverted elsewhere would be around 1.2 million and 1.7 million tonnes respectively (*ibid*, p. 19). York Aviation says they derived these figures as follows:

*“we have considered the potential air freight capacity that might exist in London under different the scenarios. In line with the structure of the market now, we have assumed that the majority of capacity will be provided via aircraft bellyhold freight. We have estimated this capacity based on the number of forecast international movements at the relevant airports in the London system multiplied by the expected average tonnage per international movement in 2050 at each airport. The latter has been derived by taking the tonnes per international movement now estimated from CAA Statistics and growing this by 0.5% per annum to 2050 to reflect increasing loads and larger aircraft. In relation to the 2nd Runway at Gatwick scenario, we have made a further adjustment to allow for the fact that we would expect the airport to attract more long haul services in such a scenario. We have assumed that that tonnage per movement in this scenario would increase significantly to be around double that observed at Gatwick in the other scenarios in 2050. This reflects the Gatwick Airport long-term demand forecasts from its submissions to the Airports Commission, which suggest a doubling in the proportion of long haul traffic at the airport by 2050.” (York Aviation, 2015, p. 19)*

3.4.8 Given that around half the goods that could be transported between Heathrow and continental Europe as air freight are already trucked by road (DfT, 2009, p. 50), an increase of 100,000 movements in each direction would potentially put huge strain on the road network. The movement of surface traffic has pinch points on the M25 and at Dover. Not only does this delay the movement of commodities, it puts extreme pressure on the road network in the South East. With South East airports at or near capacity, resilience of both the airport and road networks become key issues. It is clear from the figures presented here that the capacity available at Manston Airport is vital to the continued competitiveness of the UK.

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<sup>10</sup> Maximum total truck weight (truck, fuel and load) is 44 tonnes for trucks with 6 axles. Maximum payload is 28.1 tonnes. For trucks with 5 axles, maximum payload is 20.3 tonnes. Average load used for this calculation is 21 tonnes to take account of smaller truck sizes and lighter or part loads.



## 4 Airfreight capacity at UK airports

4.0.1 The previous sections have outlined some of the arguments that demonstrate the need for additional airport infrastructure in the UK. This section considers the South East particularly and focuses on the potential at existing airports. Whilst little research on competition in the air cargo airport market has been undertaken (Kupfer *et al*, 2016), there is no doubt that air freight operators have no enduring loyalty to specific airports, particularly in situations where there are other options located within a few hours trucking time. For this reason, East Midlands Airport, with its focus on freight has also been included in the review.

4.0.2 There are a number of factors that influence a cargo airline's choice of airport including congestion, airport delays, custom clearance times, turnaround time and market access (Kupfer *et al*, 2016, p. 56). Kupfer and colleagues' research on the drivers behind freight airlines' choice of airport includes the presence of forwarders, night-time operations, airport charges, the airport's experience with cargo, and demand for air freight services from the local region. These authors find that the presence of a major forwarder is the most important attribute for airlines when choosing an airport. The RiverOak vision is to encourage integrators and freight forwarders to locate in the Manston area, have a competitive pricing structure, and build on the previous excellent cargo handling service provided by the airport. Manston is well located, with easy surface access from throughout the South East. The Lower Thames Crossing will improve access and the Thames Estuary 2050 project aims to stimulate business in the local area.

4.0.3 Freighter operators find competitive advantage by locating at an airport that minimises flying time. Gardiner (2006, p. 11) outlines these savings in fuel costs as well as potentially in ACMI costs (aircraft, crew, maintenance and insurance). He discusses how carriers chose Manston Airport, which is 65 miles southeast of London, to avoid the London Air Traffic Control area when approaching from the south. Savings of up to 45 minutes flying time and 20 minutes taxiing can be made when compared to Heathrow or Stansted. Additionally, Manston was highly efficient in offloading aircraft and the time taken to get cargo onto trucks could be as little as 45 minutes. This compares to an average of 4 to 7 hours at Stansted and far longer at Heathrow. Gardiner quotes the Managing Director of MK Airlines as saying, "*Why bother flying a product at eight miles a minute when it sits in a warehouse for 7 hours?*" (Gardiner, 2006, p. 154)

4.0.4 The following sections consider the options for increasing air freight operations in the South East of the UK and at East Midlands Airport. These sections demonstrate that other South East airports cannot accommodate sufficient capacity for freighter aircraft to meet the forecasts for demand outlined in Section 3.4.

### 4.1 Stansted Airport

4.1.1 At present, Stansted has an operating limit of 35 million passengers per annum and currently has capacity to accommodate a number of freighter flights. However, the airport is under pressure from Ryanair to increase the number of passenger flights. Ryanair is the dominant carrier at Stansted Airport and, since the LCC model is based on fast turnarounds, the airline will not tolerate interference from cargo handling. Ryanair is increasing their offering to more distant destinations including Turkey, North Africa, Cyprus and the Middle East. For the airline to maintain four rotations per day to

maximise the profitability of each aircraft, late evening and night time slots will be required. Freight carriers have traditionally used these night slots.

4.1.2 Since the airport also has a limit on total movements, this may mean Stansted has to choose between increasing passenger movements or retaining its freight. In this case, it seems likely that Stansted's management will preference passenger movements. In support of this, TfL is working to improve passengers' surface access to Stansted Airport. Once in place, these improvements are likely to stimulate the demand at Stansted for passenger flights, increasing the pressure on slots and handling for freighters. In particular, Stansted can be expected to experience pressure at peak times such as early morning.

4.1.3 The Airports Commission ruled Stansted out of its preferred three options. The Commission does not favour the construction of a four or five-runway hub airport at Stansted since it may involve the closure of either Heathrow or Gatwick, be excessively costly, and require extensive improvements to surface transport. The Commission also did not shortlist the construction of a second runway at Stansted. However, this may be reconsidered sometime between 2040 and 2050.

4.1.4 The Commission noted that planning conditions prevent Stansted from operating to its maximum capacity and will reconsider lifting these during the next phase of its work if there is a case for optimising aviation capacity in the London system. However, the final report by the Airports Commission (2015, p. 332) recommends that the cap at Stansted be reviewed on the basis of extensive stakeholder consultation. The G1 planning cargo-only cap was 20,500.

4.1.5 It seems likely that the airport's owners, MAG, will want to maximise the use of their infrastructure, in line with the DfT's desire to make full use of existing capacity (Dft, 2012) but this is highly likely to focus heavily on the passenger market. Cargo-only flights account for only around 8% of ATMs at Stansted. Moving freight to Manston Airport could represent a significant opportunity for Stansted since they may want to free up slots for passenger aircraft use, which are of higher value to the airport.

## 4.2 London Heathrow Airport

4.2.1 Heathrow is the UK's only hub airport, handling around 474,000 air traffic movements (ATMs) per year (CAA 2015 figures), with average daily movements of nearly 1,300. Whilst Heathrow handles 63% of the UK's air freight, very few dedicated cargo aircraft use the airport (CAA, 2016). Indeed, more than 99% of air freight at Heathrow is carried in the bellyhold of passenger aircraft (CAA, 2013, p. 35). However, Heathrow does handle around 200 freighter movements per month (CAA, Table 6) including Cathay Pacific and Emirates (CAA, 2013, p. 36).

4.2.2 The addition of a third runway at Heathrow is unlikely to resolve the capacity issues for dedicated freighters. Since Heathrow's passenger market has been constrained for some years, it is likely that the new runway will be used to meet this pent up demand. Should Low Cost Carriers, who do not carry belly-freight for operational reasons, fill much of the additional runway capacity, Heathrow's freight handling, in terms of tonnes per year, is unlikely to increase substantially. Heathrow's focus on passenger and belly hold markets is also likely to continue to keep dedicated freighters out of the airport. This means that markets not served by passenger aircraft will remain unreachable for UK importers and exporters without a dedicated freighter operation.

4.2.3 However, in 2015, Heathrow Airport Limited (HAL) announced their blueprint for a £180 million overhaul to their cargo facilities. The plans include new underground access roads, improved air-to-air facilities and a specialist pharmaceutical storage area. HAL's aim is to reduce what they declare as their current processing time of eight to nine hours to around four hours<sup>11</sup>, still considerably longer than Manston's previous and proposed processing time. Even so and as York Aviation figures show, there will be a shortfall of slots for dedicated freighters, likely to be in the region of 45,000 by 2050 (York Aviation, 2015, p. 19).

4.2.4 Of interest to the Manston Airport freight forecast is that Delta reported to the CAA that whilst Heathrow is a good connecting airport for the US, it is not so well placed for Europe (*ibid*, p. 38). The CAA (2016, pp. 34-35) report a number of concerns expressed by cargo operators, including:

- *Problems with airfield access leading to bottlenecks at control posts and cargo access points viewed as a lower priority than passenger equivalents*
- *Limited space to hold cargo and empty equipment resulting in more vehicle movement*
- *Road congestion becoming increasingly an issue and impacting on already lengthy journey times*

4.2.5 As such, even with an operational third runway at Heathrow, Manston will still be vital to ensure the UK meets the needs, wherever possible, of the demand for air freight.

### 4.3 London Gatwick Airport

4.3.1 Whilst Gatwick's submission to the Airports Commission was remarkably deficient on their plans for freight, a subsequent statement says their plans are to make provision for ten times the amount of freight the airport currently handles<sup>12</sup>. Gatwick handles very few dedicated freighters, although it has increased its annual tonnage from only 3,000 in 2014 to 73,000 tonnes in 2015 (see Table 1). This lack of experience, which is a key element in the choice of a freight airport for operators (Kupfer *et al*, 2016), ensures that Gatwick is not a serious competitor in the freight market. Indeed, even with a second runway there would be a need for around 65,000 additional freighter movements per year from 2050 (York Aviation, 2015, p. 19).

### 4.4 Luton Airport

4.4.1 Luton Airport is located close to the M1 and therefore well situated to access the UK's road network. The airport handles around 28,000 tonnes of cargo each year with DHL, MNG Airlines and British Airways operating dedicated freighters from the airport. The current number of stands at Luton is unable to support significant growth<sup>13</sup>. Luton's business profile is similar to Stansted's in terms of the dominance of LCCs, focusing the airport on passenger traffic. It would therefore be improbable for the airport to provide a hub for dedicated freighters.

### 4.5 London City Airport

4.5.1 London City has benefited from permission to build seven new aircraft stands, a parallel taxiway and extend the passenger terminal. However, the airport is focused on the passenger market and handled only 24 tonnes of freight in 2015. London City has a

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<sup>11</sup> <http://your.heathrow.com/takingbritainfurther/trade-and-exports/improved-cargo-facilities/>

<sup>12</sup> <http://www.aircargoweek.com/cargo-omitted-from-gatwicks-response/>

<sup>13</sup> <https://www.caa.co.uk/WorkArea/DownloadAsset.aspx?id=4294972551>

short and constrained runway, at 1,900 metres, and is therefore unable to support a large freighter operation.

#### **4.6 Southend Airport**

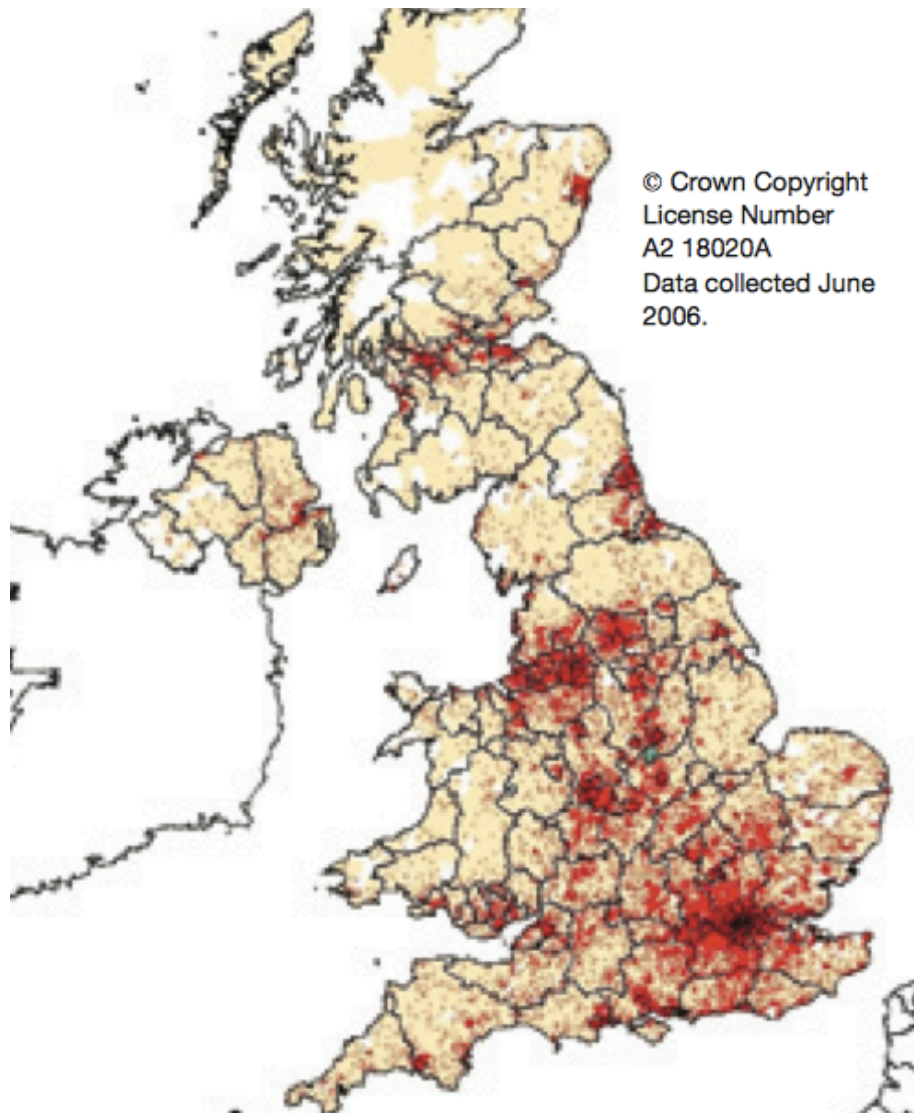
4.6.1 Southend Airport is focused on the LCC passenger market, handling only five tonnes of freight in 2015. Although extended in 2012, Southend's runway is unlikely to be suitable for long or mid range freighter aircraft.

#### **4.7 East Midlands Airport**

4.7.1 East Midlands Airport is a major successful integrator hub, focused on handling packages and parcels. DHL has a purpose-built facility at the airport and is the major operator. UPS and TNT also use the airport as well as Royal Mail. As with Stansted, the airport is owned and operated by MAG. The airport has a 24-hour licence and imposes additional charges on aircraft using the airport between 23.30 and 06.00, dependent on the noise band of the aircraft. The airport also charges a shoulder supplement between the hours of 06.01 to 07.00 and 21.01 to 23.29.

4.7.2 In 2016, East Midlands handled 257,151 freight aircraft movements. At present the airport serves a wide catchment area as shown in Figure 2. However, surface access to these geographically distant businesses, of which many are concentrated in the South East, is hampered by congestion on the UK's road network. Therefore, total time taken to deliver from origin to final destination increases, particularly around the bottlenecks on some of the major motorways. Figure 2 clearly shows the number of businesses located in the South East, within the Manston catchment area.

Figure 2 Location of businesses served by integrators at EMA



Source: DfT, 2009, page 26 (data collected in June 2006 by Manchester Airports Group)

#### 4.8 Other South East UK airfields

4.8.1 There are few other options for increasing air freight capacity in the South East. The Thames Estuary Airport proposed by Boris Johnson, the then Mayor of London, has been ruled out as an option, with the Airports Commission saying its substantial disadvantages outweighed its potential benefits. Other airports in the South East and the constraints on their development are shown in Table 3.

*Table 3 South East Airfields*

Airfield	Constraints
<b>Biggin Hill</b>	Difficult road access to main M25 artery, restricted opening hours, short runway, runway direction and proximity to Gatwick Airport creates numerous airspace issues, residential location, experiences poor weather conditions due to elevated location.
<b>Bournemouth</b>	Handled 1,565 tonnes in 2015, down 17% from 2014. Has recently (2016) attracted £40 million of government investment. However, the airport is some 30 miles from the M3 and M27 on a route that passes through the New Forest National Park, not ideal for fleets of trucks.
<b>Farnborough</b>	Restricted number of movement particularly at weekends, only certain aircraft categories permitted, Business Aviation focus that would not fit with a cargo model
<b>Lydd</b>	Short runway with considerable approach issues (including MOD Hythe firing range and proximity of Dungeness Power Station), rural location with relatively poor surface transport connectivity
<b>Northolt</b>	RAF station, safety issues raised due to proximity to Heathrow, difficulties integrating with London airspace, short runway
<b>Rochester</b>	Grass runway
<b>Shoreham</b>	Short runway, light aircraft use only
<b>Southampton</b>	Handled 185,000 tonnes in 2015, an increase of 39% on the previous year. The airport is close to the M3 and M27 and has the benefit of an onsite railway.

4.8.2 The final option in the South East is Manston Airport, which is described in detail in Section 6. Manston is the only real choice for the location of a freight-focused airport in the South East of England. Indeed, The 2003 White paper, The Future of Air Transport, states that Manston "*could play a valuable role in meeting local demand and could contribute to regional economic development*" (Department for Transport, 2003, p. 132).

4.8.3 There are, of course, a number of European airports that are able to take overflow air freight traffic from the UK. However, use of these airports involves considerable trucking of cargo to and from the UK incurring additional costs to the shipper and placing huge burdens on the UK's road and sea crossing infrastructure. Hauliers are experiencing considerable delays due to the ongoing migrant situation in Calais. Many report having to avoid Calais after dark, parking trucks in Belgium overnight and adding several hours to journey times.

4.8.4 These truck movements are lost economic opportunities for the UK. The reinstatement and redevelopment of Manston Airport will recapture much of this benefit for the Country. Indeed, flying freight from Manston, negating the need to truck to and from European airports for air transportation, should help to ease congestion in the area. During Operation Stack, which has been used since 1996, the coast-bound side of the M20 in Kent has to be closed to traffic in order to park trucks waiting to cross the Channel. This is a costly exercise in terms of policing, delay for hauliers, and the effect on the local economy and quality of life. Indeed, the Freight Transport Association

calculated the cost to the haulage companies of the three week delay in July 2015 to be £700,000 a day with costs of £250m to the UK economy as a whole<sup>14</sup>.

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<sup>14</sup> <http://www.bbc.co.uk/news/uk-england-kent-33688822>

## 5 The politics of aviation

5.0.1 Since the 1986 Airports Act, the UK government no longer builds airports or adds runways (Department for Transport, 2003) and, “*can only encourage and incentivize airport operators to invest in new capacity, when it believes capacity would best benefit the national interest*” (Humphreys et al, 2007, p. 341). As such, it is vital that government makes, “*best use its regulatory, fiscal and planning levers to encourage the investment it wants*” (ibid, p. 343).

### 5.1 Political setting

5.1.1 The UK’s international transport networks are a key enabler to trade in goods and services (DfT, 2009). Therefore, continued procrastination about the location of additional airport infrastructure, particularly runways, has led to considerable frustration. Graham Brady, Conservative MP and Chair of the 1922 Committee<sup>15</sup>, tabled an Early Day Motion on 29<sup>th</sup> February 2016, which criticises the Government for procrastination over airport capacity in the South East. His motion reads:

*"This house regrets the continuing delay in making a final decision on airport expansion in London and the South East; believes that a decision is vital for the prosperity of the nations and regions of the United Kingdom and urges Ministers to make sure that this delay is not repeated; notes that the Airports Commission spent three years and millions of taxpayers' money examining the evidence in a process that has been robust and rigorous; believes the government should get on with making a decision on airport expansion in the South East of England as swiftly as possible; further believes that every additional period of delay will cost the UK billions in lost trade and investment and damage the UK's competitiveness; therefore urges the government to use the coming months to make rapid progress and announce a final decision in parliament before the summer recess."*

5.1.2 At present, neither the UK nor EU governments have specific policies for air freight. However, the UK Draft Aviation Policy Framework states that:

*"In the short term, to around 2020, a key priority for us is to continue to work with the aviation industry and other stakeholders to make much better use of existing runways at all UK airports."* (Department for Transport, 2012, p. 19)

5.1.3 The 2013 Aviation Policy Framework makes clear the Government’s support for aviation infrastructure and highlights the benefits to the economy of providing transport and trade routes for imports and exports to the rest of the world (DfT, 2013, p. 16). Indeed, the policy framework states that:

*"The UK's continued economic success depends on being able to connect with the countries and locations that are of most benefit to our economy. This is important in relation both to destinations that fall into that category today and those locations that will become crucial to our country's economic success in the future. While it remains vital for the UK to maintain its connectivity with established markets such as the USA and in Europe, it is also important that we take advantage of the growing opportunities presented in the*

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<sup>15</sup> A body of Conservative Members of Parliament known formally as the Conservative Private Members’ Committee



*emerging economies of the world to remain competitive in the global economy.” (DfT, 2013, p. 28)*

5.1.4 The Aviation Policy Framework indicates the Government’s concerns over the falling number of destinations served by Heathrow Airport and the impact on connectivity. Profitable routes are operated at higher frequencies, reducing the number of destinations served (DfT, 2013, p. 28). This reduces the possibility of using belly-freight to those destinations no longer served from Heathrow and indicates the need for dedicated freighters on those routes.

5.1.5 Indeed, in line with RiverOak’s desire to re-open and re-develop Manston Airport, the Framework describes Government’s key priorities to around 2020 (DfT, 2013, p. 30) as:

- *making best use of existing capacity to improve performance, resilience and the passenger experience;*
- *encouraging new routes and services;*
- *supporting airports outside the South East to grow and develop new routes; and*
- *better integrating airports into the wider transport network.*

## **5.2 The potential effect of BREXIT on UK aviation**

5.2.1 At the Royal Aeronautical Society’s conference on the effect of the UK leaving the EU on Britain’s aviation, aerospace and space sectors held in October 2016, David Jones MP, Minister for Exiting the EU, stressed the importance of the UK aerospace sector to the UK’s on-going prosperity. He said the UK’s aerospace sector would be the economic and trade spearhead for forging new links with the rest of the world. The MP stated that the sector is six times more productive than the rest of the UK’s economy and will be central to building a new outward-looking Britain and providing post-Brexit opportunities. As such, it seems counter-productive to allow a potentially viable airport such as Manston to be used for housing.

5.2.2 There are many unknowns at this stage - prior to the commencement of negotiations – and building a future for the aviation sector will not be without risks. These risks include the ability to influence future EU aviation policy, access to Galileo’s precision satellite navigation signals, participation in the ATM SESAR initiative, collaboration in aviation and military R&D programmes, and aviation market access<sup>16</sup>. Indeed, in principle, UK airlines may lose their rights to fly between European countries. This will adversely affect airlines such as EasyJet, where 24% of their seats are on flights between countries remaining in the EU<sup>17</sup>.

5.2.3 One option for the UK will be to join the European Common Aviation Area<sup>18</sup>. This is an agreement between the EU and partners from south-eastern and northern Europe (including Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Montenegro, Serbia, Kosovo under UNSCR 1244, Norway and Iceland). The objective of the ECAA was to integrate the EU’s neighbours in southeast Europe in the EU’s internal aviation market, which, at the time, consisted of 25 EU Member States as

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<sup>16</sup> <https://www.aerosociety.com/news/tailwind-or-turbulence-brexit-and-uk-aerospace/>

<sup>17</sup> [https://peresua.files.wordpress.com/2016/06/2016\\_06\\_28-brexit-suau-sanchez-la-vanguardia.pdf](https://peresua.files.wordpress.com/2016/06/2016_06_28-brexit-suau-sanchez-la-vanguardia.pdf)

<sup>18</sup> [http://ec.europa.eu/transport/modes/air/international\\_aviation/country\\_index/ecaa\\_en.htm](http://ec.europa.eu/transport/modes/air/international_aviation/country_index/ecaa_en.htm)

well as Norway and Iceland. ECAA airlines have open access to the European single market in aviation.

5.2.4 The EU is currently the UK's most important trade partner, accounting for half of all UK exports and imports (Dhingra *et al*, 2015). Following the vote to exit the EU (so-called Brexit), Britain now has to negotiate Free Trade Agreements (FTA) with the EU. It is likely the UK and the EU will agree trade deals but higher tariffs and non-tariff barriers will make imports and exports more expensive, affecting trade between the UK and the EU. Friction at the borders between EU countries and the UK, particularly at the Channel ports, is likely to increase to meet the demands of security checks and ensuring tariffs are paid where necessary. This may serve to switch transport away from trucking to air freight, avoiding congestion at the Channel Crossings. It is also likely that increased trade will occur between Britain and more geographically distant countries. Trucking of goods to these countries will not be an option thus increasing the need for air freight, making the capacity Manston can provide nationally significant to the Nation's airport infrastructure.

5.2.5 Backloading (the transportation of cargo on a return trip, using empty space paid for on the outward leg) from international airports is important although not essential as this helps airlines to maximise profit on their return journeys. However, this requires fourth or fifth freedom rights, depending if two non-UK countries are involved<sup>19</sup>. Freedoms of the air are a set of commercial aviation rights that grant one country's airlines privileges to enter and land in another country's airspace. They result from the Chicago Convention, the Convention on International Civil Aviation of 1944<sup>20</sup>. There are nine levels of freedoms, where the first provides rights to overfly a foreign country and the eighth and ninth provide full cabotage (rights to operate inside a foreign country). The fifth freedom provides the right to operate between two foreign (non-domicile) countries when the flight originates or terminates in the home country.

5.2.6 The events of the 22<sup>nd</sup> March 2016 at Brussels Airport and of the 28<sup>th</sup> June at Istanbul have put airports around Europe on high alert<sup>21</sup>. London airports increased their security and are under pressure to check everyone entering airport terminal buildings<sup>22</sup>. Airports in the UK and Europe carry out security checks on passengers as they go airside. Once airside, some airlines scan hand luggage again at the departure gate. Airports are not designed to security check all visitors as they enter the airport. If required, it will cause huge delays and require passengers to arrive many hours (almost certainly at least three) before their flight. These delays impact belly-freight, making a switch to dedicated freighters more likely. This is particularly the case for perishable and high value goods. However, switching from belly-freight to dedicated freighters requires slots to be available, particularly in the South East. An operational Manston with a focus on freight would help to accommodate this potential increase, allowing the UK to maximise the economic benefits it derives from trade with the rest of the world.

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<sup>19</sup> Freighters frequently 'hop' between countries rather than make point-to-point journeys to or from the UK and one other overseas country

<sup>20</sup> <http://www.aviationlaw.eu/wp/wp-content/uploads/2013/09/Freedoms-of-the-Air-Explained.pdf>

<sup>21</sup> <http://www.dailymail.co.uk/news/article-3504030/Europe-s-biggest-airports-step-security-armed-police-patrols-terror-attacks-Brussels.html>

<sup>22</sup> ITV news report, Good Morning Britain, 22<sup>nd</sup> March

### 5.3 The continuing impact of e-commerce

5.3.1 E-commerce is the fastest growing retail market in Europe and North America with online sales forecast to grow strongly year on year. In the UK, Germany, France, The Netherlands, Sweden, Italy, Poland and Spain, this market grew from £132.05 billion in 2014 to £156.67 billion in 2015, a growth of 18.6%<sup>23</sup>. Indeed, in the UK, the increasing use of smartphones for internet shopping has driven online spending with UK retailers to £133 billion in 2016, 16% higher than 2015<sup>24</sup>. Retail is not the only market to migrate to e-commerce. The shift to consumer-driven healthcare is creating new e-commerce opportunities throughout the supply chain including retailers, manufacturers, and online merchants.

5.3.2 IATA figures for October 2016 show strong growth in the air freight sector, which may indicate, *“an early sign of a shift in the industry business model and a pivot away from the traditional drivers of growth.”*<sup>25</sup> IATA says that, *“Anecdotes from the industry have reported strong growth in cross-border e-commerce and pharmaceutical flows.”* *“Moreover, with sales events such as Black Friday and Cyber Monday only becoming more popular, this year may also be a sign of more intense peak periods in the future for more traditional items such as apparel and consumer electronics.”*<sup>30</sup> Since countries with 1% better air cargo connectivity engage in 6% more trade<sup>26</sup>, it is imperative for the UK, particularly post-Brexit, to ensure our manufacturers, importers and exporters are fully globally connected, with unconstrained access to air freight transportation.

5.3.3 This potential for further dependence on air freight due to the impact of e-commerce is set against the freight capacity constraints at South East airports. Addressing these capacity constraints by bring Manston Airport back into the UK network seems to be vital for the continued and growing prosperity of the Country. Without rapid increases in freight capacity, the UK will suffer even greater economic losses than those currently described (see for example Centre for Business Research, 2016).

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<sup>23</sup> <http://www.retailresearch.org/onlinereetailing.php>

<sup>24</sup> <https://www.imrg.org/media-and-comment/press-releases/uk-online-sales-in-2016/>

<sup>25</sup> <http://www.aircargonews.net/news/single-view/news/e-commerce-helps-lift-airfreight-demand-growth-to-18-month-high.html>

<sup>26</sup> <http://www.iata.org/whatwedo/cargo/Pages/index.aspx>

## 6 Manston Airport

6.0.1 Manston Airport is located on the Isle of Thanet in East Kent, 17 miles from the Port of Dover, 65 miles from Central London and 60 miles from the Port of Tilbury. Figure 3 shows the airport's location in the South East of the UK. The airport's runway has a length of 2,742-metres and a width of 61 metres, heading 10/28. It is capable of handling all types of aircraft. The airport has been closed to traffic since May 2014.

Figure 3 Map showing location of Manston Airport



### 6.1 History

6.1.1 Manston has been an airfield since the Great War. In 1915, aircraft began using farmland at Manston for emergency landings when unable to use their destination landing strip on top of the cliffs at Westgate. By the end of 1916, there were two units stationed at the Admiralty Aerodrome at Manston. By 1939 and the outbreak of World War II, Manston was still an all-grass airfield. It was from here that Barnes Wallace designed and tested his bouncing bombs in the sea near Reculver in preparation for the Dambusters raids. In the 1940s, the runway at Manston, the longest and widest in southern England at the time, was built to assist the safe landing of badly damaged aircraft returning from Europe.

6.1.2 In 1999, RAF Manston was closed and ownership of the airport passed to the private sector. The Wiggins Group plc/PlaneStation first purchased the civilian enclave from Seaborne Aviation in 1997, completing the purchase of the remainder of the airport from the MOD in 1999. The Wiggins Group plc/PlaneStation owned the airport until 2005. Infratil, a New Zealand company who also operated Prestwick (Glasgow) airport, took control of Manston in 2005. The airport has enjoyed a unique position in the hearts of local people. In 2005, the residents of Thanet expressed, "broad support for

*the proposed expansion of the airport*” (MORI, 2005) with 85% in favour of expansion of the airport of which 63% were strongly in favour. More recently, many local people have campaigned vigorously to save the airport from housing development and a number of action groups coordinate the continuing activities of Manston airport’s supporters.

## 6.2 Previous operations

6.2.1 Before its closure, the operators of Manston Airport managed all airport activities including ATC, fire cover, security, ground handling, catering, duty-free and slot allocation. The airport focused on the cargo market whilst also providing passenger flights. In terms of cargo, Manston established a reputation for speedy handling of perishable cargo, with unloading and throughput times much faster than competitor airports. By 2012, Manston was carrying around 31,000 tonnes of cargo per year. Table 4 shows the extent of the airport’s operation from 2004 until its closure in 2014.

**Table 4 Manston Airport operations**

Year	Tonnes of cargo	ATMs	Passengers
2004	26,626	3,460	100,592
2005	7,612	4,862	206,875
2006	20,841	913	9,845
2007	28,371	1,205	15,556
2008	25,673	798	11,625
2009	30,038	811	5,335
2010	28,103	1,469	25,692
2011	27,495	1,965	37,169
2012	31,078	1,004	8,262
2013	29,306	2,073	40,143
2014 (Airport closed in May)	12,696	778	12,385

Source: Department for Transport Statistics, Table 02.2 Summary of Activity at UK Airports, 2004 to 2014

6.2.2 Since Manston suffered from a severe lack of investment, and constraints on the ground are likely to have resulted in capacity restrictions that prevented growth past the figures for cargo shown in Table 4. With only one cargo stand, aircraft were unable to exit to the runway if another aircraft taxied into the cargo area behind it. The airport had limited storage, had not invested in up-to-date handling equipment, and closed their Border Inspection Post. In spite of the lack of investment, there was considerable growth in Manston’s cargo market from 2010 until 2013. This growth strongly indicates that Manston, with the investment required would have a strong future as shown below<sup>27</sup>:

- 2010: 4 weekly freighters
- 2012: 7 weekly freighters
- 2013: 9 weekly freighters
- 2014: 13 weekly freighters

<sup>27</sup> Provided by Alan McQuarrie, cargo manager at Manston Airport at time of closure

- 2013: 5<sup>th</sup> busiest UK airport on tonnage handled
- 2013: Overtook Luton to become 4<sup>th</sup> busiest airport in the South East
- 2013: 3<sup>rd</sup> busiest UK airport handling dedicated freighters

6.2.3 In 1958, Manston became a joint RAF and civil airfield and played a key role in the early and developing years of charter air travel. From this time and during the 1960s, the airport was home to a fleet of five Hermes 4A aircraft, operating successful passenger services from Manston to Le Tourquet for Silver City Airways. In 1961, one of the directors of Silver City, Wing Commander Hugh Kennard, founded Air Ferry, which flew charter flights from Manston. When the company was taken over by Air Holdings Group, Kennard founded Invicta Airways, which operated passenger and cargo flights from Manston. Indeed, during the summer of 1965, 120,143 passengers were flown from Manston to destinations including Basel, Dusseldorf, Luxembourg, Malaga, Palma, and Seville<sup>28</sup>. The airline operated from Manston throughout its 18-year history.

6.2.4 In terms of passenger operations, several charter services have used the airport over the years of its operation. In the 1990s there were summer services to Jersey, Mallorca, Crete, Cyprus, and the former Yugoslavia. Operators such as Dan Air, the Yugoslavian carrier, Aviogenex, and Aspro Holidays operated successful services from Manston. For several years, Manston hosted seasonal charter flights connecting cruise line passengers from the USA to the Port of Dover. In 2001 this operation accounted for some 9,000 passengers. The airport arranged bonded transportation by coach between the airport and the port so that passengers cleared customs and immigration in Dover. Their baggage was not reclaimed at the airport but delivered to their cabin on the cruise ship.

6.2.5 The low cost carrier EUJet had a base at Manston between 2004 and 2005. The airline used a small fleet of Fokker 100 jets and had a schedule including 21 domestic and European destinations. Between 2010 and March 2012, Flybe operated a daily service from Manston to Edinburgh, Belfast and Manchester. In April 2013, KLM began a twice-daily service between Manston and Amsterdam, which ended when the airport's owners gave notice it was closing.

6.2.6 Helicopter search and rescue operations ran from Manston from the early 1960s until the closure of the RAF base in 1995 (with some small gaps). Manston was the preferred Search and Rescue airport for the area but the closure of the airport forced the contract to be re-awarded.

6.2.7 One of the questions raised by those who doubt Manston's ability to attract air traffic, is why other operators have been unsuccessful. Manston was first privatised in 1999. Sold to the Wiggins Group (later PlaneStation plc), the airport attracted a considerable amount of air freight traffic. However, in 2004/5, the company purchased the low cost airline, EUJet, without apparently completing satisfactory due diligence. In 2005, both PlaneStation and EUJet went into administration.

6.2.8 Ownership of the airport passed to Infratil, a New Zealand-based company. Under their management the airport continued to attract freight traffic and instigated a twice-daily rotation with KLM to Amsterdam. However, as Pauline Bradley, Director of Manston Skyport (owners of Manston from 2013), says, the airport suffered from the

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<sup>28</sup> Woodley, C. (2014) Flying to the Sun: A History of Britain's Holiday Airlines. Available from <https://books.google.com/books?isbn=0750968702>

physical distance between its ownership and operation<sup>29</sup>. Infratil's management of Manston seemed to lack a business plan or strategic direction. Indeed, the airport's management made little investment in their facilities, something airlines would expect to demonstrate a commitment to the medium and long term. Other competing facilities at Stansted, East Midlands, and Doncaster invested significantly and benefited in terms of traffic growth. The constraints imposed on prior operations by the airport's infrastructure limited the potential for business development, particularly since Manston's attraction to air freight customers was in its turnaround times. With increased numbers, these would be severely impeded without the major investment proposed by Riveroak.

6.2.9 In 2013, Infratil sold Manston Airport for £1 to Ann Gloag, co-founder of the Stagecoach Group. Sir Roger Gale, giving evidence at the Transport Select Committee's smaller airports inquiry, said Ann Gloag "*had no intention of running this as an airport and every intention of seeking to turn this into an asset stripping property development*"<sup>30</sup>. Ms Gloag pledged to keep the airport open for two years but within months the airport was closed.

### 6.3 Infrastructure

6.3.1 The Manston site extends to some 730 acres (296 hectares), 618 (250 hectares) on the main site and 114 (46 hectares) on the Northern Grass. Whilst the airport has been decommissioned, buildings that housed the passenger terminal and office facilities, Border Inspection Post (BIP) and cargo hangers still stand, as does the car parking area. The existing taxiway network requires modification in order to allow Manston to attract the widest range of operators as well as being EASA compliant. Improvements would include a new taxiway parallel to the runway, new taxiways linking the aprons and stands, and modifications to existing taxiways to ensure gradients are EASA compliant.

6.3.2 Much of the equipment that was installed at the airport when it closed has now been removed. This, however, is not a drawback as the airport will benefit from an upgrade to state-of-the-art navigation and operational equipment. A new radar facility will be installed in its original position to the northwest of the site on what is known as the Northern Grass. Modifications to the airport site will match the forecast produced for Manston. In particular, construction work will allow for the parking of up to 11 aircraft (eight freighters and three passenger) including those classified as Codes E and F. Access to the new cargo facility, which will cover approximately 66,000 m<sup>2</sup>, is proposed from the B2190 (Spitfire Way) to the west of the existing access.

6.3.3 RiverOak Strategic Partners intend to redevelop the site, providing standing for eight freight aircraft and three stands for passenger use. Airport improvements will also include cargo storage and handling, and a new passenger terminal, within two years of taking ownership and before reopening Manston Airport. Construction and development will allow the airport to accommodate at least 10,000 freight movements and up to one million passengers per year within the first six years of operation. Further developments will be made in the medium-term to accommodate the predicted increase in both freight and passenger traffic.

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<sup>29</sup> <http://www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/news/smaller-airports-ev2/> on 2<sup>nd</sup> February 2015

<sup>30</sup> As above

6.3.4 Almost all air cargo is intermodal in that it has to be transferred from airport to final destination by surface transport, generally by road on trucks. Surface access is therefore vital to the success of a freight airport and Manston has good arterial road links. The completion of the East Kent Access Road (A299) means that Manston is now accessible directly from the national trunk road network. In terms of drive time, the airport is less than 60 minutes from the M25 London Orbital, significantly widening the passenger catchment area of the airport.

6.3.5 A new Lower Thames Crossing will improve access from Manston to Essex, Suffolk and Norfolk, reducing travel times from the M25 and onto the M11, A1, and M1. Freight arriving and leaving Manston Airport from/to continental Europe avoids the need to further congest the bottlenecks on the M25. A decision on the chosen route was expected at the end of 2016 but has been delayed. Manston Airport has excellent high-speed rail links from Ramsgate station, less than 10 minutes drive from the airport, to Ashford International and Central London.

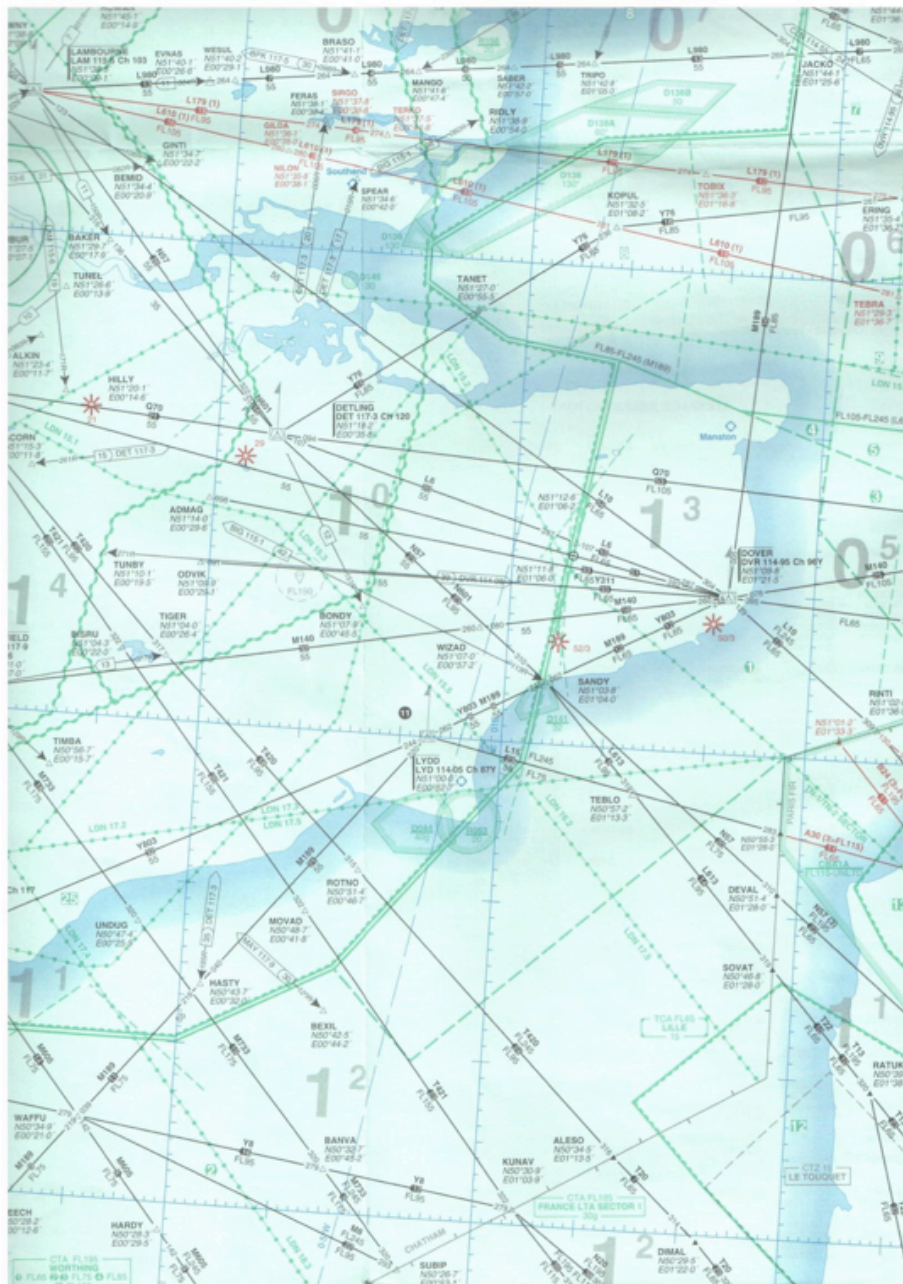
## 6.4 Airspace issues

6.4.1 Airspace is an essential element in determining whether Manston is viable as an airport. Major airports must be able to integrate into the European Air Traffic Management Network, which considers air routes, airways and airports across Europe in a seamless and contiguous manner. Successful integration entails connectivity - identifying suitable entry and exit points to join and leave the network - as well as minimising impact by ensuring aircraft can climb to cruising altitude without blocking multiple levels. The South East of England, and the London area in particular, has amongst the busiest and most congested airspace in Europe. However, as Figure 4 shows, from an airspace perspective, Manston's location is ideal. The airport is sufficiently close to the confluence and convergence of major routes, such as those that converge on the Dover beacon, to be able to exploit them whilst sufficiently far away for aircraft to gain height safely before doing so. Aircraft departing from Manston can climb to 6,500 feet (and higher if routed to the north) before having any impact on the efficiency of the Air Traffic Management network.

6.4.2 From an airspace perspective, expansion of an airport also requires consideration of the impact on adjacent airfields and traffic patterns, the routing of civil and military aircraft operating in the area, and the impact on third parties on the ground in terms of safety and noise. The recent proposed airspace changes at airports in the London area highlight the considerable resistance from the broader aviation community. Both civil and military stakeholders raised objections because of the potential impact on their operations as well concerns over noise.



Figure 4 Aeronautical chart showing location of Manston Airport



Source: UK(L)1, No 1 AIDU, Flight Information Publication, En-route Low Altitude, Southern UK (for reference only)

6.4.3 Although any proposed changes to airspace would be subject to extensive public and aviation stakeholder consultation, development at Manston would have no adverse impact on either civil or military aviation in the area. Indeed, the infrastructure at Manston previously allowed the airport to be designated for emergency diversions for aircraft crossing the Channel. Manston is outside the London Terminal Manoeuvring/Control Area (TMA) and can therefore provide landing facilities for emergency incidents without causing disruption to the London airports.

6.4.4 For aircraft approaching from the east, the vast majority of the flight path will be over the sea. Only the final 2.5 miles are over land, which includes 1.5 miles over-flight of part of Ramsgate. For aircraft approaching from the west, the area is comparatively lightly populated. Aircraft approaching in this direction may route over Herne Bay but will have an altitude of around 2,400 feet at this point. As part of the development of approach and departure flight paths and operating procedures for Manston, population densities would be taken into account to minimise the number of people affected by aviation noise. Such proposals would be subject to close scrutiny by the CAA as part of their Airspace Change Process.

## 7 Future potential opportunities for Manston Airport

7.0.1 The previous sections have made a clear case for the reopening of Manston as a freight-focused airport with supplementary passenger operations. Capacity constraints in the South East have particularly affected freighter aircraft. Heathrow lands very few freighter aircraft and with Stansted reaching its current operating capacity, particularly at peak times, the situation is becoming increasingly critical, resulting in air freight being trucked to and from northern European airports.

7.0.2 Airports are both drivers of economic growth in a region as well as drawing on the success of the region to fuel their own growth. In March 2015, Kent County Council, in their brochure, 'Manston Airport under private ownership: The story to date and future prospects' say that, "*For decades we have argued that Manston was a sleeping giant: a regional and national asset.*" (KCC, 2015, p. 2) Looking to the future, there are a number of pertinent developments that, whilst not critical to the viability of Manston, are likely to increase the success of the airport including:

- The extent of local support for Manston Airport
- Thames Estuary Growth Commission 2050
- Lower Thames Crossing

7.0.3 The developments described in this section substantiate the claim that Manston Airport should be designated as nationally significant infrastructure and a valuable asset to Thanet, East Kent, the South East of England, and to the nation.

### 7.1 Support for Manston Airport

7.1.1 In terms of its political environment, at a local level, the debate about Manston Airport provided a focal point during the 2015 General Election. Both Thanet's Members of Parliament, Thanet North MP, Sir Roger Gale, and Thanet South MP, Craig Mackinlay, made an undertaking during the election campaign to make every effort to ensure Manston became a working airport again. Sir Roger Gale has been a staunch supporter of Manston airport as his website<sup>31</sup>, makes clear. On the 8<sup>th</sup> February 2017 he makes the point that Brexit will drive the need for additional capacity in the South East. He says:

*"Last year air freight traffic grew by nearly seven per cent. With Brexit and the need to compensate for the loss of European business by developing new markets in Asia and the Far East we are going to need much more freight, as well as passenger, capacity in the South East. That capacity, without Manston Airport simply will not be available. The facility is going to be vital to service our Country's immediate and future needs."* (Gale's View, 8<sup>th</sup> February)

7.1.2 Thanet District Council has also been a long-time supporter of the airport. In May 2015, UKIP (UK Independence Party) won control of Thanet District Council with 33 seats. Their campaign majored on their support for Manston Airport and their promise to instigate a CPO. The Conservatives, who won 18 seats, also stood on a pro-Manston Airport ticket.

7.1.3 There are a number of local action groups who support Manston. These groups have been actively campaigning for the reinstatement of operations at the airport.

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<sup>31</sup> [www.rogergale.co.uk](http://www.rogergale.co.uk)

Indeed, research by MORI in 2005<sup>32</sup> evidenced the local support. The study, which was conducted for Thanet District Council as part of the Section 106 Agreement consultation, was based on a representative telephone survey of 500 residents of Thanet, 2,340 postal and electronic questionnaires, and in depth interviews with 10 key stakeholders. When asked by MORI about local support for the expansion of Manston Airport, 85% were in support, of which 63% were strongly in support (MORI, 2005, p. 4). Only 8% of the population were in opposition, of which 5% were strongly opposed. The most frequently given reason for the local people's support of the airport was about the job creation an airport brings to the area.

7.1.4 In July 2014, a petition was presented to the Prime Minister by the local MPs, Sir Roger Gale and Laura Sandys, TG Aviation, and the Save Manston Airport group. The petition had 26,524 signatures in support of re-opening Manston as an operational airport.

7.1.5 In July 2016, RiverOak conducted a non-statutory consultation at six locations in Thanet and East Kent. Approximately 1,400 local residents attended the public consultations undertaken in July 2016. Meetings were held in Broadstairs, Margate, Ramsgate, Sandwich, Canterbury, and Herne Bay. Analysis of the responses to the non-statutory consultation show that 90% of the 822 responses to the consultation were in support of the reopening of the airport, with only 8% against and 2% undecided. Opposition to the airport has remained constant at around 8% since the MORI study in 2005.

7.1.6 The representative from No Night Flights (a campaign group set up to prevent the introduction of scheduled night flights at Manston), Ms Ros McIntyre, gave evidence to the Transport Select Committee on the 2<sup>nd</sup> February 2015. When asked whether her views against the development of Manston Airport were representative of the local population, she responded, "*the most honest answer anybody can give you is that nobody knows*". Thanet District Council engaging MORI to carry out a representative survey to gauge the feeling of local residents. Their findings suggest Ms McIntyre's response was not correct. Also, whilst providing evidence to the Select Committee, her interpretation of the MORI study was that local people "*were two to one against night flights*". This is not supported by the report, which states:

*"The vast majority (96%) also say that their current quality of life is either not very much or not at all affected by passenger flights at night. There is little differentiation between night-time passenger and cargo flights, with 93% saying that their quality of life is affected not very much or not at all."* (MORI, 2005, p. 5)

7.1.7 Indeed, even for those living under the flight path, only a small percentage said their quality of life was affected either a great deal (8%) or a fair amount (11%) by night passenger flights and night cargo flights respectively. The proportions for those living in areas away from the flight path were 2% and 4% for night passenger and cargo flights respectively (MORI, 2005). Since this time, there have been a number of innovations in aviation and technological advancements are addressing key issues and redefining the sector. Reductions in aircraft weight, more efficient engines and aircraft, and sustainable aviation fuels are having radical impacts on some of the negative aspects of flying. These

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<sup>32</sup> <http://hbm2015.com/wp-content/uploads/2016/08/2005-04-S106-Consultation-MORI-results.pdf>

developments will impact all airports, making aviation quieter and cleaner, thereby reducing the negative impacts on those who live close to airport.

## **7.2 The Thames Estuary 2050 project**

7.2.1 During his 2016 budget speech, the Chancellor of the Exchequer announced the extension of the Thames Gateway project. Lord Heseltine has been commissioned to develop and implement a plan to create high productivity clusters along the Thames Estuary. The development zone is a critical economic corridor, linking the Channel Tunnel and the seaports of Tilbury and Dover with London. This corridor includes Manston Airport, the only freight viable airport within the Thames Estuary area. As part of the ambitious Thames Estuary 2050 project, a freight-focused airport at Manston will provide a considerable boost to the local and regional economies. In 2015, the UK missed out on at least £9.5bn in potential trade with emerging economies due to the lack of runway capacity (Centre for Business Research, 2016). The presence of a freight-focused airport in the Thames Gateway will provide businesses with the means to import and export high value, time-sensitive and perishable goods and alleviate some of the trade that is currently lost due to a lack of UK airport infrastructure.

## **7.3 The Lower Thames Crossing**

7.3.1 The consultation on the construction of a Lower Thames Crossing took place at the beginning of 2016 with many stakeholders pressing for a decision soon. The new crossing would allow surface traffic to access Manston from the east of the Country without negotiating the M25 and the associated bottlenecks. This would be particularly important for freight since trucks would be able to operate between Manston and East London, the East of England, and onwards to the Midlands and the North. The improvement to road infrastructure in Kent is expected to negate the previous accessibility issues that were previously raised about the location of Manston Airport. Indeed, since Manston is located to the south east of London, closer to continental Europe, using the airport saves fuel (around \$2,000 to \$3,000 per movement according to one interviewee) and crew time. This saving for airlines adds to the attractiveness of Manston as a London area airport.

## **7.4 Manston's role in the resilience of the UK airport network**

7.4.1 In addition to benefit of having local support and the ability to harness the opportunities outlined above, an operational airport at Manston has the benefit of providing valuable resilience in the UK airport network. This is particularly vital at times when nearby airports such as Heathrow and Gatwick are closed or restricted. Manston has a long and wide runway with hard standing available away from the runway, which makes the airport particularly important as an emergency diversion airport. Stansted, the current South East diversion airport, has to be closed during an emergency, causing major disruption to passenger flights, which can cause knock on effects such as missed connections.

## **7.5 A British Spaceport**

7.5.1 The Queen's Speech in May of 2016 announced the UK's intention to create a British spaceport. The Government's ambition is for the UK to be the European centre for space tourism and is identifying potential sites for development. These need to be existing airfields with at least a 3,000-metre runway away from densely populated areas at a coastal location (Nye, 2016, p. 27). Whilst Manston has not yet been considered, the four airfields so far identified as possible locations for the UK spaceport are remote: two are in Scotland, one in north Wales, and one in Cornwall.

## 7.6 Enterprise Zones

7.6.1 In the 2011 Budget, the Government announced the creation of a number of Enterprise Zones across England. Enterprise Zones define a geographical area where fiscal incentives and simplified planning controls encourage businesses to flourish by reducing the barriers to growth. Enterprise Zones have been established to include or be based around a number of airports including Manchester, Luton, Newquay and Cardiff. The Government's Draft Aviation Policy Framework (DfT, 2012, pp. 28-9) outlines the effect of Enterprise Zone Status on airports including transforming airports into international business destinations, creating jobs, and attracting investment to boost air connectivity and maximise economic impact. Should Manston Airport re-open, it may be possible to apply to the Government for Enterprise Zone status, providing incentives for businesses to locate to the area, bringing additional employment and economic benefits to Thanet. These businesses might include a Maintenance, Repair and Overhaul (MRO) facility, an aircraft recycling facility, the return of the flying school, and a business jet operation.

## 8 Conclusions

This report set out to answer three key questions.

### **1. Does the UK require additional airport capacity to meet its political, economic, and social aims?**

The forecasts discussed in this report highlight the need for additional airport capacity. These forecasts show that between 54,000 (TfL, 2013) and 80,000 (York Aviation, 2015) movements will be unmet by current capacity by 2050. Even with the third runway at Heathrow, capacity for 45,000 movements will need to be found (York Aviation, 2015). The UK patently and urgently requires additional airport infrastructure. Without this, the UK is hemorrhaging potential trade, particularly with non-EU countries. In monetary terms, the UK missed out on at least £9.5bn in potential trade and is predicted to accumulate losses at the rate of £1.1 million every hour (CEBR, 2016).

### **2. Should this additional capacity be located in the South East of England?**

The London airports facilitate 76% of the UK's air freight (Oxford Economics, 2013, p. 3) and all London airports will be at capacity by 2030 (Airports Commission, 2013, p. 20). The South East is particularly hard hit by the lack of airport capacity with losses in potential trade running at £2bn each year (CEBR, 2016). Demand is driven by where airlines want to fly to and from and demand is highest in the South East. Dedicated freighters have been squeezed out of Heathrow and potentially moved from Stansted as they focus on passengers as their preferred market. The other airports in the South East either do not have the runway length or space for warehousing to accommodate a vibrant freight operation, which may be seen, particularly by LCCs who do not carry belly-freight, to interfere with passengers operations.

### **3. Can Manston Airport, with investment from RiverOak, relieve pressure on the UK network and meet the requirement of a nationally significant infrastructure project?**

Manston Airport was operational for 100 years until its closure in May 2014. Due to its size, location and lack of airspace constraints, TfL figures show that Manston Airport has the potential to attract and accommodate at least 14,000 cargo movements per year. Indeed, Manston is the only viable option for a freight-based airport in the South East in the short, medium, and long-term. Moreover, the work in this report shows that the addition of a third runway at Heathrow does not change the need for a freight-based airport at Manston.

It is clear from the data presented in this report that the answer to each of the questions posed is yes. Manston Airport can be operational in as little as two years from the transfer of its ownership to an airport operator. Its strategic location, runway length and potential to accommodate all necessary infrastructure together with the considerable local backing mean it is without comparison in the UK. No other airport in the South East is so well supported. As this report shows, Manston is the only airport in the South East that can provide airport infrastructure for freight cargo that is badly needed by the UK now and in the long term. .

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**MANSTON AIRPORT:  
A NATIONAL AND REGIONAL  
AVIATION ASSET**

**VOLUME II**  
A qualitative study of potential demand

MARCH 2017

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**Disclaimer**



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## Executive Summary

The research detailed in this report seeks to examine the demand for Manston Airport as a freight hub for the South East of the UK with additional passenger and general aviation services. There is clear demand for additional airport capacity in the South East of England, with evidence that existing airports are increasingly focusing on the passenger market as they near capacity.

Manston Airport is located in the South East where aviation industry demand is highest and most constrained. The airport has an ideal airspace location; benefits from easy surface access to London and the rest of the UK; and can provide rapid handling and turnaround times for air freight. The airport would provide almost immediate relief to the pressing situation that is causing £2bn in potential trade to be lost to the South East each year we remain without additional runway capacity (Centre for Business Research, 2016). Indeed, examples of unconstrained freight-focused airports in Europe, such as Frankfurt Main, show the difference between a true market, where capacity is available to attract freighter flights, and a constrained market such as that in London.

Assessing demand for freight is no easy matter, with forecasts usually calculated by extrapolating past trends for a region or country before allocating a proportion to individual airports. This approach may miss any currently unmet demand, which for the South East of the UK is calculated to be around 80,000 movements without new capacity and 45,000 with a third runway at Heathrow by 2050 (York Aviation, 2015, p. 19). TfL concur that there will be considerable unmet demand in the South East by 2050. Their calculation is more conservative at 54,000 freighter movements without new capacity and 33,000 with two additional runways (in this case at Gatwick and Stansted) (TfL, 2013).

Evidence collected for this report suggests that vast amounts of freight are already trucked to and from northern European airports, losing revenue for UK airports and increasing costs for all those in the supply chain. Indeed, findings from the literature review suggest a lack of datasets for freight forecasting, the unreliability of using historic data to predict the future, the inability to infer forecasts for individual airports from national figures, and the volatility in the freight sector. Academic and industry experts contacted through this research process confirmed these findings, validating the qualitative approach taken.

The work detailed in this report therefore applies a qualitative method to identify demand for potential sectoral and geographic freight, passenger and other aviation markets. As such, the report provides qualitative demand data, derived from 24 interviews, that underpins the proposal to retain Manston as an airport and redevelop the site as a nationally significant infrastructure project.

A number of issues have been identified through this research, which present opportunities for Manston Airport including:

- The lack of available slots at South East airports
- Bumping of freight from passenger aircraft
- Security issues particularly with outsized cargo
- Speed of turnaround and bottlenecks for air freight

Interviewees have provided insight into the potential markets for Manston Airport, which include:



- Perishables including fruit, vegetables, flowers, fish, and shellfish
- Outsized freight
- Express freight
- Formula One and luxury cars
- Live animals (for breeding or racing)
- Time sensitive items such as aircraft and the oil and gas industry
- Humanitarian and military flights

The research has also identified opportunities for aircraft recycling, an on-site MRO, a FBO, and a flying school. Additionally, there is the potential to attract an integrator to Manston Airport, which would dramatically increase the profitability of the airport.

In terms of passenger services, this research has identified opportunities including providing a base for a number of low cost carrier aircraft (LCCs), for charter and scheduled flights, and for a tie up with Dover Harbour Board to receive passengers destined for cruise ships. The Paramount theme park and Ebbsfleet Garden City development are expected to increase demand for both in- and outbound flights. The Lower Thames Crossing will improve accessibility by road to Manston and the Thames Estuary 2050 regeneration project benefit from the presence of a freight-focused airport and will, in turn, stimulate demand for the airport.

This report concludes that Manston Airport is of strategic importance to the UK, having the ability to attract significant air traffic to meet the criteria of a national significant airport. In light of the findings described in this report, there can be little doubt that, in an increasingly competitive economic climate, the UK cannot afford to lose one of its long-serving airports. This report shows that Manston Airport is a valuable regional and national asset, capable of providing infrastructure badly needed by the UK and playing a role in helping Britain's connectedness and trade with the rest of the world.

## Definitions and abbreviations

ACI	Airports Council International
Air freight	The carriage of goods by aircraft
ATM	Air Transport Movement and/or Air Traffic Movement
BAA	Formally the British Airports Authority
Backload	The transportation of cargo on a return trip to the originating airport
Belly-freight	Cargo stowed under the main deck of a passenger aircraft
BTO	Build-to-Order
CAA	Civil Aviation Authority
Cargo	The term cargo and freight are used interchangeably in this report and refer to goods carried by road, sea or air
Consolidator	A person or company who combines small volumes of commodities from different originators so they can be shipped together and who usually owns the aircraft used for transport
CPO	Compulsory Purchase Order
DCO	Development Consent Order
Dedicated carrier	An aircraft that transports only freight (not passengers)
DfT	Department for Transport
EASA	European Aviation Safety Agency
EIA	Environmental Impact Assessment
EU	European Union
EUROCONTROL	European Organisation for the Safety of Air Navigation
FAA	Federal Aviation Administration
FBO	Fixed Base Operation
Freight	The term freight and cargo are used interchangeably in this report and refer to goods carried by road, sea or air
Freight forwarder	A person or company that organises the shipment of commodities from an originator (manufacturer, producer, etc.) to a destination (customer, etc.) but generally does not own the aircraft used in the transport
GVA	Gross Value Added
ICAO	International Civil Aviation Organisation
ICT	Information and communications technology
JIT	Just-in-time, a manufacturing system that allows materials or components to be delivered just as they are required in the manufacturing process, thereby minimising storage costs
LCC	Low cost carrier
LCY	London City Airport
LGW	London Gatwick Airport
LHR	London Heathrow Airport
Long haul	No generally agreed definition as 'long' or 'short' is subjective. In Europe, a flight taking more than four hours to complete and/or originating/destined outside Europe is considered long haul
MRO	Maintenance, repair and overhaul facility
Short haul	As above. Short haul in Europe generally indicates a flight within Europe so taking around four hours or less to complete
STN	Stansted Airport
TfL	Transport for London
UK	United Kingdom
USA	United States of America
WTO	World Trade Organization



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# 1 Introduction

## 1.1 Background and rationale

1.1.1 There is an urgent need for airport capacity in the south east of the UK as outlined in the first report in this series, *Manston Airport: A regional and national asset: Volume I: Demand in the south east of the UK*. Whilst the Government have now decided to support the construction of a third runway at Heathrow, it will take many years before the political, legal, environmental and development issues are resolved and the runway is operational. In these intervening years, likely to be until at least 2030<sup>1</sup>, the UK will suffer continued airport congestion and lose the economic benefits associated with meeting demand for air travel. Even with a third runway in place there will still be a need to accommodate additional freight.

1.1.2 Having noted the opportunity to reopen Manston Airport in 2014, RiverOak Strategic Partners, a UK-registered investment company, began the process of negotiating with the owner of the airport, Ann Gloag, co-founder of the Stagecoach organisation. However, approaches to Ms Gloag have been unsuccessful and the airport was closed in May 2014. The re-opening of Manston is now subject to a Development Consent Order (DCO) that entails the compulsory purchase the site.

1.1.3 The intention of the current owner is to secure a change of use from airport operations to a property development called Stone Hill Park. This development would include 2,500 homes in the first instance, a business park, and sports facilities. Such change of use would lose the opportunity to increase airport capacity in the South East in the short term. This report describes the research carried out to understand the potential for Manston Airport.

## 1.2 Aim and objectives

1.2.1 The aim of this report is to investigate the demand for Manston as an operational airport. This investigation includes freight and passenger demand as well as other potential revenue generating activities the airport can support. The results of the investigation will be used to support the development of a 20-year demand forecast for Manston Airport. This forecast will include the number of aircraft movements per year, an indication of the type and tonnage of freight moved, the number of passengers, the airlines' origin and destination, and the type of aircraft predicted to use Manston. A review of the extant literature will be used to ensure a robust methodology is followed, particularly with regard to air freight demand forecasting.

1.2.2 There are a number of objectives set out for this work and in particular the results will:

- Provide the information required to support the DCO application
- Inform the Manston Airport business case and master plans
- Inform Manston's marketing strategy
- Initiate stakeholder consultation
- Continue to inform key stakeholders
- Open dialogue with academic institutions from Higher and Further Education

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<sup>1</sup> 8<sup>th</sup> February 2016, The Transport Committee hears evidence from the Secretary of State for Transport on the Government's plans for airport expansion in the South East.  
<http://www.parliament.uk/business/committees/committees-a-z/commons-select/transport-committee/news-parliament-2015/airport-expansion-ev-session-15-16/> at 15.07.35



- Stimulate innovation and the future business direction for the airport
- Provide a platform for lobbying Government and industry organisations
- Play a role in forming Government policy for air freight in the UK

### 1.3 Delimitations and limitations

1.3.1 The delimitations of a study are the boundaries the sponsor imposes during the selection of their research questions. This contrasts the limitations of the study, which refer to conditions or influences that cannot be controlled by the researcher. For this paper, the delimitation is the focus on Manston Airport and in particular its potential for air freight operations. An unconstrained approach, looking beyond Manston to develop a forecast for the UK or Europe, is outside the scope and resources of this project.

1.3.2 Research of this nature has its limitations. Indeed, transport models generally are at best “*imperfect representations of reality*” (DfT, 2014, p. 3). The limitations of this study, including the particulars of the research design and methodology, are not intended to be generalizable beyond Manston Airport. However, since there are no current UK government guidelines for assessing air freight demand at an airport level, it is hoped this study will provide a valuable resource to DfT policy makers.

1.3.3 Every effort has been made to ensure the robustness of this study. Decisions on the selection of the method used to assess demand, its design, and inputs are transparent and straightforward to audit. Key stakeholders have been invited to influence all aspects of the research and will continue to be able to monitor, assess and challenge the validity of the information produced. Air freight is subject to a wide range of external influences. These influences make the process of assessing demand for air freight complex. In mitigation, this study incorporates a process of triangulation, checking and re-checking with industry specialists to ensure the best assessment of quality possible in the circumstances.

### 1.4 Report structure

1.4.1 The report is structured such that an overview of the air freight market is first presented to provide a clear understanding of the sector and its key elements. This is followed by a review of air freight forecasting literature, which guides the choice of methodological approach for this study. Next, the method used is outlined. The following section describes the findings from the research, structuring them so that freight, passenger, and other potential revenue streams are reported separately. A discussion of the information gathered follows the findings section. The report concludes with recommendations for government and RiverOak Strategic Partners.

## 2 The air freight market

2.0.1 Air freight, goods carried between one point and another in an aircraft, is only one of the various means of transporting goods. However, air freight has played an important role in enabling the rapid delivery of goods between countries. Table 1 shows the characteristics of different modes of transport. Due to air freight's particular qualities, it is generally used to transport commodities with high value, high business impairment value or time critical (not having the item would incur considerable cost to business), low demand predictability, or that are perishable (Gourdin, 2006).

*Table 1 Characteristics of different transportation modes*

	Rail	Road	Pipeline	Air	Water
Door-to-door	Sometimes	Yes	Sometimes	No	Sometimes
Price	Low	High	Very Low	Very high	Very low
Speed	Slow	Fast	Slow	Very fast	Very slow
Reliability	Medium	Medium	Very high	Very high	Low
Packaging needs	High	Medium	Nil	Low	High
Risk of loss and damage	High	Medium	Very low	Low	Medium
Flexibility	Low	High	Very low	Very low	Low
Environmental impact	Low <sup>i</sup>	High <sup>ii</sup>	Low <sup>iii</sup>	Medium <sup>iv</sup>	Low <sup>v</sup>

<sup>i</sup> Minimal air and noise pollution, low energy consumption per ton-kilometre travelled

<sup>ii</sup> Air and noise pollution, traffic congestion, high energy consumption per ton-kilometre travelled

<sup>iii</sup> Pipeline rupture could result in catastrophic environmental damage

<sup>iv</sup> Air and noise pollution, very high energy consumption per ton-kilometre travelled

<sup>v</sup> Minimal air and noise pollution, low energy consumption per ton-kilometre travelled

Source: Gourdin, 2006, p. 88

2.0.2 Compared to passenger transport, air freight is more complex, “because the former [air freight] involves more players, more sophisticated processes, a combination of weight and volume, varied priority services, integration and consolidation strategies, and multiple itineraries of a network than the latter [passenger transport].” (Feng et al, 2015, p. 265)

## 2.1 Types of air freight

2.1.1 Boeing (2014) segment air freight into three main service sectors:

- **Scheduled freight**
  - Including general and express freight
  - Accounts for 88% of the world air freight market
  - Express freight continues to grow faster than the average world air cargo growth rate
- **Charter freight**
  - Made up of urgent and/or special handling requirements
  - 8% of the market
  - Almost entirely carried on dedicated cargo aircraft rather than as belly-freight
- **Mail**
  - Forecast to grow at 1% per year
  - Risks to growth include express operators moving to mail, increasing Internet communication, a move to express services by mail air freight operators, and more stringent security requirements

2.1.2 Gardiner and Ison (2007, p. 5) segment the air freight industry rather differently:

- **Belly-hold freight**
  - Percentages vary by airport, from almost all at Heathrow to very little at East Midlands
- **Express freight**
  - Carriers operate dedicated freighter aircraft on a time-definite basis
  - Worldwide almost 50% of airport movements in this sector take place at night
- **Heavy freight**
  - Dedicated cargo either on a scheduled or charter basis

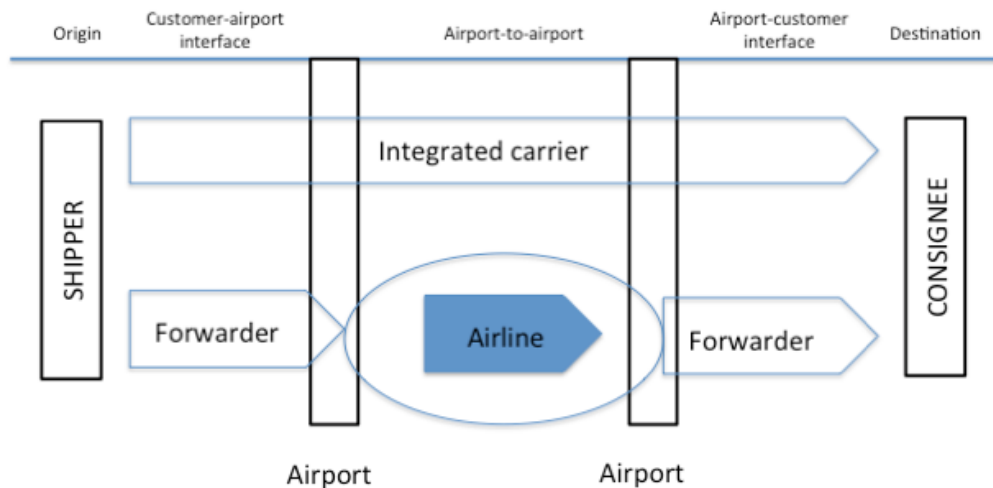
2.1.3 Other industry segmentations of the air freight market include:

- **General air cargo**
  - Includes individually planned and time-defined services suited to price-sensitive cargo with non-urgent transit times that are not hazardous or dangerous
- **Express freight/perishables**
  - The fastest growing market, including all urgent and time critical cargo
- **Specialist or niche cargo**
  - Including dangerous goods and live animals
- **Mail**

## 2.2 Air freight models

2.2.1 There are two models of air freight: the air freight forwarding model and the integrated air freight model. Figure 1 shows the door-to-door air freight value chain from its origin with the shipper to its destination with the consignee. The customer contracts with either an integrated carrier (such as FedEx, UPS, DHL, etc.) or a freight forwarder.

**Figure 1** The door-to-door value chain



Source: Clancy *et al*, 2008 in Khan, 2010, p. 10

**2.2.2 Air freight forwarders:** These organisations provide a service to shippers and importers that has evolved over the last few decades. Originally freight forwarders received a consignment of freight from a shipper and arranged its routing, transportation handling and documentation to either the final receiver or to a foreign airport without owning the vehicles (trucks or aircraft) involved. In more recent years, the role of the forwarders has developed with the largest companies now describing themselves as logistics providers. Most air freight forwarders use belly-freight on scheduled passenger services using wide bodied aircraft although there are a number of dedicated all-cargo freighter aircraft.

**2.2.3 Integrators:** These companies provide a door-to-door service, usually using their own road transport, handling, transit warehousing facilities and aircraft. Normally integrators contract directly with the shipper. Originally branded as express operators, they now compete more directly with freight forwarders and airlines. Integrators mainly use dedicated freighter aircraft although they may buy capacity on passenger aircraft.

**2.2.4** The types of commodities transported by air include high value and generally low weight items; perishable goods such as fruit, vegetables, and flowers; and process critical items such as medical items (pharmaceuticals, etc.), and machinery parts where outages would be costly (such as for aircraft and telecommunications equipment). A significant proportion of the UK's total air freight flow consists of transshipments (DfT, 2009).

**2.2.5** This section has defined and outlined the air freight market. However, one of the key issues for airports is how to derive an understanding of demand for this market. The following section describes the complexities of air freight when compared to passenger demand forecasting and reviews literature to identify the most suitable method to use for Manston Airport.

### 3 Review of air freight forecasting literature

3.0.1 There is a distinct lack of academic literature in the field of air cargo (Gardiner and Ison, 2007, p. 15). Forecasting air freight is quite different from forecasting passenger movements for a number of reasons. Firstly, passengers tend to make round trips whereas air freight moves in one direction only. Origin-destination (O-D) information is much harder to collect because passengers generally prefer direct routings whereas shippers are concerned only with ensuring cargo arrives within the agreed timescale. This may mean belly-hold freight makes any number of aircraft changes (Khan, 2010). Secondly, air freight forecasting is complicated by the relative lack of statistics available and by the range of alternative options available to shippers. It is perhaps for these reasons the literature on air cargo volume forecasting has always been secondary to passenger forecasting (Khan, 2010, p. 70).

3.0.2 This section sets out the way in which the literature was interrogated to define a means by which to assess the demand for air freight movements at Manston Airport. Secondary research involves the collation and examination of existing information. A review of the extant literature helps build a robust case and make clear the premises on which subsequent work is based. The literature review method comprised three stages. The first stage was to clearly define the problem under investigation. In this case, the aim was to identify any useful and credible methods that had been used for forecasting air freight. These methods could originate in academia, government departments, or industry.

3.0.3 The second stage was to undertake a preliminary review of literature through Google and academic database searches. Known sources of credible information were accessed first. These included:

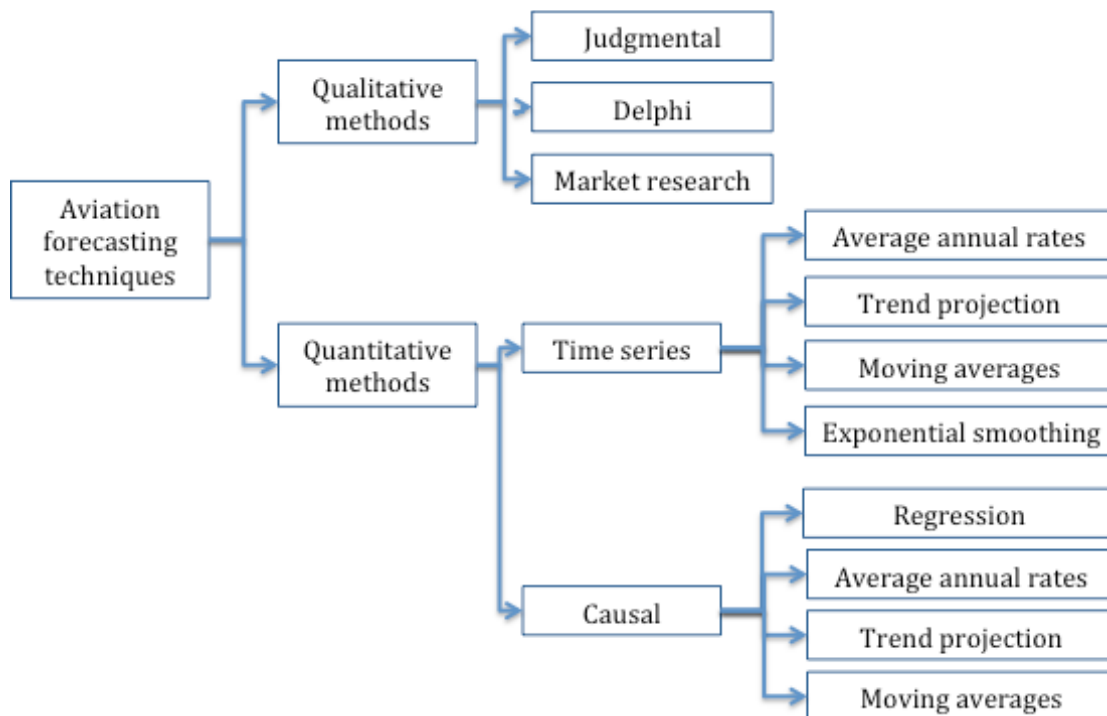
- The EU's Transport Research and Innovation Portal, an online database of research documents
- The EU's website, particularly the transport pages
- The UK Government's Department for Transport website
- The Airports Commission publications

3.0.4 The final stage was to follow citations found in the preliminary review. Information from these documents was then incorporated in the review. All literature has been referenced using the Harvard system, in text and in the list of references at the end of the report. Footnotes have been used where citations refer to opinions quoted in the press or on websites and do not form part of the literature review.

3.0.5 Broadly, aviation forecasting techniques can be divided into three main categories: qualitative methods; quantitative time series methods; and quantitative causal methods. Figure 2 shows the range of forecasting techniques available in aviation modelling.

3.0.6 Forecasts for freight are carried out on a 'demand pull' basis, where the importing country/region causes the demand for the commodity. This contrasts the LCC passenger model, where low prices cause 'demand push' to airports that may not usually 'pull' passenger traffic. However, there is evidence to suggest that an important driver in freight transport demand is the location of logistics centres with efficient service quality (Gardiner, 2006).

Figure 2 Range of aviation forecasting techniques



Source: Silva, 1994

3.0.7 The review of literature uncovered a number of forecasting techniques, which are described in the following sections.

### 3.1 Four-step models

3.1.1 The history of demand modelling for passenger travel has been dominated by an approach referred to as the 'four-step model' (FSM) (McNally, 2007). De Jong *et al* (2004, pp. 105-6) describe the four steps in freight forecasting as:

1. Production and attraction: Marginals of the origin-destination (OD) matrix (quantities of goods to be transported)
2. Distribution: Cells of the OD matrix (flows between origins and destinations)
3. Modal split: Allocation to modes of transport
4. Assignment: Convert tonnes of freight to transportation mode units (i.e. number of aircraft)

3.1.2 De jong *et al* review models for each of these steps:

1. Production and attraction
  - Trend and time series models that extrapolate historical data to provide a forecast into the future.
  - System dynamics models where growth in GDP is fed back into the model (for example the ASTRA - Assessment of Transport Strategies - system dynamics model). These models may not provide sufficient detail to show point-to-point flows.
  - Zonal trip rate models predict the number of trips originating in or destined for a particular traffic analysis zone. However, a 2012 paper produced for the

Association of European Transport by Holgiun-Veras and colleagues calls into question the accuracy of freight trip generation (FTG).

- Input-output and related models are macro-economic models that start from input-output tables. These tables describe the movement of goods (in units of currency), import and export, between sectors and consumers. These statistical tables are produced nationally.
2. Distribution
    - Gravity models
    - Input-output models
  3. Modal split
    - Elasticity-based models
    - Aggregate modal split models
    - Neoclassical economic models
    - Econometric direct demand models
    - Disaggregate modal split models (including inventory-based models and models on SP data)
    - Micro-simulation approach
    - Multi-modal network models
  4. Assignment
    - Separate assignment stage model
    - Multi-modal network model

3.1.3 Issues associated with freight modelling include the conversion between the value of goods being transported and their weight. Value/weight ratios need to be calculated by commodity groups to get an accurate as possible forecast. De Jong and colleagues also point out that shipment frequency, shipment size, return loads, and vehicle utilisation rates influence transport decisions.

## 3.2 Airports Council International (ACI)

3.2.1 Two documents have been reviewed in this section: The first is the 2011 ACI Airport Traffic Forecasting Manual; and the second is Chapter 3: Demand Forecasting Techniques from the ACI North America Air Cargo Compendium 2013.

3.2.2 ACI Airport Traffic Forecasts (ACI, 2011) use a blend of methods including data from a sample of around 250 airports, econometric variables, and estimates based on airline capacity considerations. Forecasts take account of capacity constraints as well as demand data. The 20-year timeframe includes short and medium-term forecasts. ACI data includes:

- Development of worldwide passenger traffic
- Traffic projections by region
- Individual forecasts for over 140 countries
- Forecast traffic growth between world regions
- Freight and aircraft movements

3.2.3 The ACI North America Air Cargo Compendium provides more specific information on forecasting techniques for air freight at individual airports. They recommend deriving customised inputs from a detailed market assessment informed by

carriers, their business partners and other supporting entities in the air freight community (ACI-NA, 2013, p. 3). Unlike their sister body, the ACI-NA propose forecasting unconstrained market-driven demand.

3.2.4 The ACI-NA also discusses how airports might stimulate local air freight activity. They suggest that in the US, airports have developed truck drop centres near major highways, *“to efficiently pull air traffic away from gateway airports”* (ACI-NA, 2013, p. 5). They also suggest that airport users find certain infrastructure and facilities desirable, including, *“newly built air cargo facilities, easier airport access, warehousing sorting and storage space, smoother customs policies, secure airside access, and shorter taxi-time”* (ACI-NA, 2013, p. 6).

3.2.5 The ACI-NA’s forecasting model separates air cargo demand from supply in the stages as described below (ACI-NA, 2013, pp. 7-13):

#### **Air cargo demand**

- Origin/destination
- Commodity (perishability, value, weight, and physical dimensions)
- Level of service (desired transit times)
- Shipment size
- Regional/local economic indicators (demographics, employment, production, industrial location)
- Demand side indicators (economic, industrial and demographic factors affecting destination/origin markets)

#### **Air cargo services and other supply factors**

- Integrated air cargo carriers
- Combined passenger/freight carriers
- Freight forwarders
- Customs brokers
- Trucking firms
- Warehousing, ground handling, and 3PL firms
- Current and future fleet trends
- Time through the airport (including security screening)
- Cost of using the airport
- Restrictions at the airport (night flying, noise, emissions, etc.)

3.2.6 In terms of supply considerations, ACI-NA believe the most important consideration is assessing whether existing patterns and trends are set or whether change can be expected and should be incorporated into air freight forecasts (ACI-NA, 2013, p. 12).

3.2.7 The activity measures the ACI-NA advise incorporating into forecasts are shipment weight and value; the number and capacity of aircraft operations by category, type and aircraft size; truck activity to and from the airport; and infrastructure at and near the airport (ACI-NA, 2013, pp. 12-13).

3.2.8 In terms of a specific forecasting method, ACI-NA recommends the following activities (ACI-NA, 2013, pp. 16-20):

- Collect and analyse data
  - Current aviation industry and cargo trends



- Catchment area socio-economic data
- Historical air service and cargo traffic trends
- Benchmarking against similar airport
- Competitor analysis
- Employ modelling technique
- Use a market share forecast (if using data for a region or country)

3.2.9 The ACI-NA recommend using both near-term and long-term forecasts, where the method for each can differ. Whilst the long-term forecast can be based on statistical regression analysis linked to projections for GDP, the near-term forecast should take account of judgements by industry specialists.

3.2.10 The ACI manual (2011) also provides information on constructing ultra short-term forecasts to optimise operational performance (used to produce resource plans, avoid departure delays, etc.).

### 3.3 Airports Commission demand forecasting model

3.3.1 The Airports Commission based their forecasting model on the DfT's aviation forecasts. However, they also analysed how demand for air travel is likely to change in the future in response to national and global economic development, policy changes, and fuel price changes. Additionally, the Commission took account of national and international competition, particularly the effect of UK airport capacity constraints. However, the Airports Commission says they did not follow a mechanistic 'predict and provide' approach. Instead they developed new assessment methodologies including noise impacts, surface access, cost and deliverability.

3.3.2 The main details of the Airports Commission demand forecasting model is contained within their standalone report (Airports Commission, 2013). Very generally, the Airports Commission classify forecasts into one of three main categories (Airports Commission, 2013, pp. 6-7):

- Naïve – where tomorrow is forecast to be like today
- Causal – where dynamic links to economic, fiscal, and demographic drivers are modelled into demand forecasts
- Judgement based – where data is limited or simply not available, the Airports Commission recommend using expert witnesses to predict how demand might look in the future. Several methods are useful including executive judgement, the Delphi Method, and market research. Use of these methods requires transparency of assumptions and testing on different scenarios (see Section 13 of this report for a discussion of various scenarios).

3.3.3 The Commission's forecasts focus heavily on passengers, with little description of how air freight was handled. The uncertainties and scenario testing carried out all involved passenger transport. Since the Commission declare their base forecast was provided by the DfT, it can be assumed, since no mention of a change to the air freight forecasts took place, that these stand.

### 3.4 ASTRA

3.4.1 ASTRA (Assessment of Transport Strategies) is a system dynamics model developed for the European Commission (ASTRA, 2000). With this type of system, changes to freight transported over time are fed back as an impact on the economy and GDP. This in turn affects freight figures. ASTRA has a macro-economic module that

allows regional growth in GDP to be predicted. However, system dynamics models do not usually contain sufficient detail to allow zone-to-zone forecast flows and link loadings to be made (de Jong *et al*, 2004).

### 3.5 Boeing

3.5.1 The Boeing (and Airbus etc.) forecasts are good references for macro-level information. These sources consider international volume growth but do not provide micro-level, airport-specific forecasts nor the methodology to do so. The next update to the World Air Cargo Forecast (WACF) is due in the fourth quarter of 2018.

3.5.2 Boeing (2014, p. 10) says four approaches provide useful forecasts. These are:

- Econometric modelling - useful for medium- and long-range forecasts in regional markets
- Evaluation based on judgment – used to account for predictable changes in non-econometric growth factors
- Trend analysis - useful in evaluating general changes in the market attributable to the combined effects of numerous factors
- Potential analysis - useful for forecasting markets in their early stages of development. This approach projects air freight from total freight using the value of the goods (Boeing suggest more than \$16 per kilogram) to estimate which will be moved by air.

3.5.3 The most recent forecast shows 5.2% growth annually (world) and 4.6% Europe in air cargo. Boeing report world air cargo traffic began to grow, from a period of stagnation, in the second quarter 2013. By July 2014, traffic grew by 4.4% compared with the same period in 2013. 2014 showed growth of 4.8%. 2015 showed accelerated growth in the early months but a flattening for the rest of the year before strengthening in 2016. A return to trend growth is predicted by 2018.

3.5.4 The major growth was between the Middle East and Europe, with air cargo growing by 13.6% in 2013 and 11.1% in 2015. Indeed, Boeing say that, *“The number of airplanes in the worldwide freighter fleet will increase by more than half during the next 20 years as demand for air cargo services more than doubles.”* (Boeing, 2013, p. 3)

### 3.6 Department for Transport national level forecasts

3.6.1 Despite an in depth literature search, the air freight forecasting method used by the DfT seems sparse when compared to the passenger information they provide. Their 2013 publication, UK Aviation Forecasts, says this:

*“This forecast assumes that demand for air freight, the share of freight carried on dedicated cargo flights and the average payload of these flights will follow the average trend over the period 1990 – 2011. This results in a future projection for air freight ATMs that grows from 2011 outturn at an average rate of 0.4% a year.”* (DfT, 2013, p. 55)

3.6.2 Later in the same report, the DfT refer to the 2000 MDS Transmodal, used by Halcrow in the earlier version of the freight model 97. This model links freight demand to GDP in the long-term, providing a much higher demand than the final DfT output. This is due to the DfT taking the view that the downturn in freighter ATMs from 2001 will continue. They therefore reduce their freight ATM forecasts between 2011 and 2050

from growth of around 2% to only around 0.5%. By 2030, this reduces their forecast ATMs from an unconstrained 120,000 to 60,000 (DfT, 2013, p. 103).

3.6.3 The 2001 report by MDS and others for the DfT, forecasts air freight between 2000 and 2010. Instead of GDP, MDS linked air cargo to international trade, applying an increasing share to UK trade projections (Morrell, 2011). Their assumptions of stimulated competition between airports resulted in an increased forecast for freighter cargo from 30% in 1998 to 57% by 2030. Indeed, under an alternative scenario, this move towards cargo being carried on dedicated freighters resulted in an increase to 74%.

3.6.4 To be complete, the methodology used by the DfT for forecasting passenger traffic has been included here. The model has two stages: The first is the National Air Passenger Demand Model (NAPDM), which forecasts national demand. This demand is disaggregated into sub-markets including origin-destination, country of residence, business/leisure, and final destination/transit. The second stage is to allocate demand to individual airports. This is carried out through the National Air Passenger Allocation Model (NAPAM). No such models exist for air freight traffic.

3.6.5 Time series regression analysis follows to identify the drivers for passenger air travel and to model these relationships. These drivers can be categorised as those that affect economic activity (such as consumer expenditure, GDP, and trade) and those that influence airfares (oil prices, carbon prices, and airline costs). Drivers are allocated elasticity of demand factors for each of the passenger segments (business/leisure, etc.). Following the two-stage process, ATMs (Air Traffic Movements) can be forecast for each airport. This data can then be used to produce forecasts for the aircraft fleet mix at each airport and by route.

### 3.7 DG-TREN projects

3.7.1 DG-TREN is the European Directorate General for Mobility and Transport. According to DG-TREN, the aviation sector is strategically important, making a vital contribution to the EU's overall economy and employment. Aviation supports almost five million jobs and contributes €300 billion, or 2.1%, to European GDP.

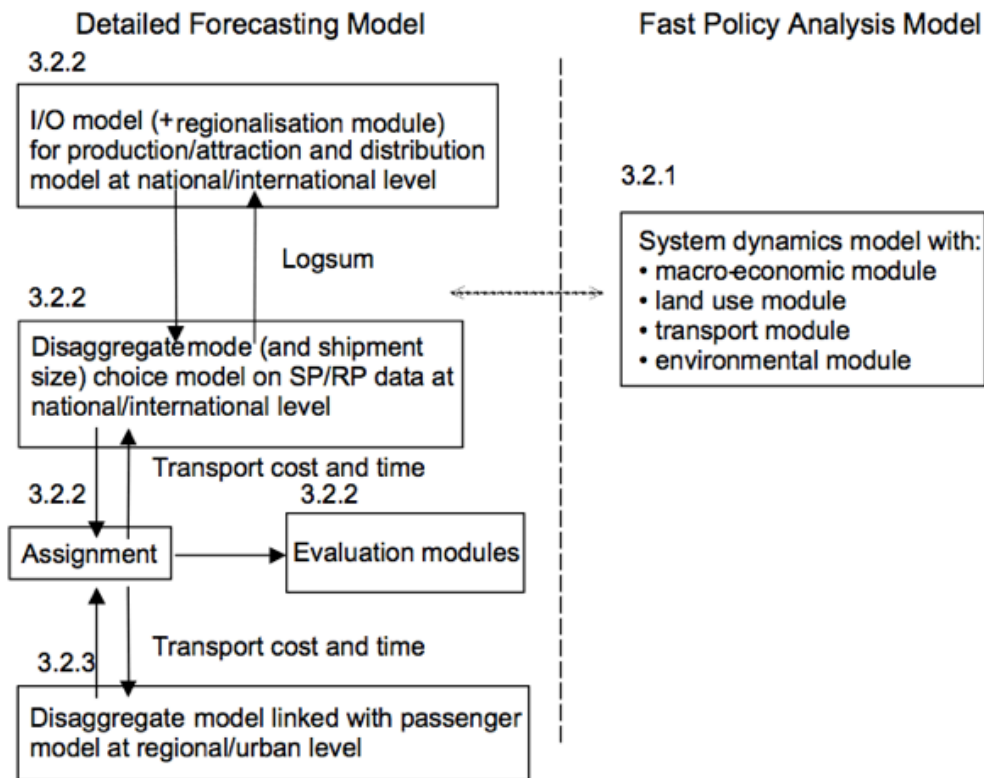
3.7.2 As part of their remit, DTREN has funded the development of a number of advanced tools for transport policy decision-making. Included in these are MDir, SCENES and STEMM, brief descriptions of which follow.

### 3.8 MDir

3.8.1 The European Commission, as part of a project for DGTREN, established a European Transport Model Directory (MDir). This directory contains information on freight transport models and also on joint passenger and freight transport models (De Jong *et al*, 2004). The project does not include air freight specifically. The project lists a number of national freight models. For the UK, MDir lists the STEMM national freight transport forecast system (see below).

3.8.2 The project recommends development of a model with high and low-resolution levels for detailed and policy analysis respectively. Figure 3 shows the steps involved in the proposed model structure, which is based on a four steps process.

Figure 3 MDir proposed freight forecasting model



Source: De Jong *et al*, 2004, p. 12

### 3.9 SCENES

3.9.1 The SCENES Internet database is a databank of variables including 33 sectors and more than 200 European zones, covering passengers and freight. The objective of SCENES is to allow the production of transport demand scenarios for the EU. These scenarios are made up of external, socio economic scenarios, and sets of policy scenarios (ME&P (UK) *et al*, 2002).

### 3.10 STEMM

3.10.1 DG-TREN's STEMM project (Strategic European Multimodal Modelling) is a sophisticated passenger, multi-country passenger and freight transport model. Again, this project failed to incorporate air freight, focusing on road, rail and sea. However, the project developed a methodology for modelling intermodal chains for passenger and freight transport. The project aimed to assist policy makers to reduce barriers to intermodality arising from institutional and regulatory measures<sup>7</sup>.

3.10.2 The researchers had problems with data collection for the freight transport aspect of the model, with the voluntary survey resulting in an inadequate sample size. The model was completed using data from other sources. A number of policy scenarios were built into the model including a strongly anti-road orientated strategy<sup>8</sup>.

### 3.11 Eurocontrol

3.11.1 The latest edition of the European Commission's Eurocontrol Network Manager seven-year forecast was published in February 2016. Eurocontrol is the European

<sup>7</sup> [http://cordis.europa.eu/result/rcn/22642\\_en.html](http://cordis.europa.eu/result/rcn/22642_en.html)

<sup>8</sup> <http://cordis.europa.eu/transport/src/stemmprep.htm>

Organisation for the Safety of Air Navigation. It provides Europe-wide impartial air traffic forecasts, market analysis, and statistics to the aviation community. Due to its focus on air navigation, only IFR (Instrument Flight Rules) flights are included.

3.11.2 Eurocontrol/STATFOR takes an econometric forecasting approach to provide impartial Europe-wide air traffic forecasts. Other Eurocontrol units use this high level forecast, shown in Table 2 for the UK, to provide forecasts at the level of individual airports. The forecast uses the most up-to-date input forecasts of economic growth, population, low-cost market share growth, load factors, future events, future high-speed rail network, and future airport capacities. It uses scenario-based inputs to describe the future combined with data-driven models (such as the development of high-speed rail).

*Table 2 STATFOR IFR movement forecast for the UK*

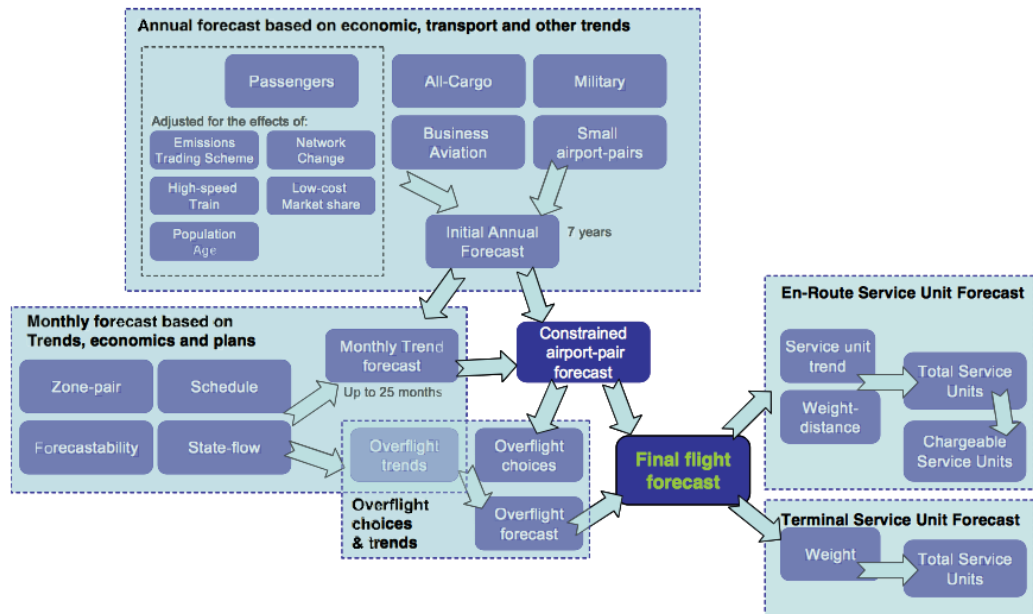
IFR Flight movements ('000s)	All IFR traffic			Cargo traffic @ 3.4% of total		
	High	Base	Low	High	Base	Low
2012		2,211			75.2	
2013		2,225			75.7	
2014		2,269			77.1	
2015		2,322			78.9	
2016	2,410	2,384	2,358	81.9	81.1	80.2
2017	2,480	2,435	2,382	84.3	82.8	81.0
2018	2,570	2,484	2,395	87.4	84.5	81.4
2019	2,641	2,531	2,416	89.8	86.1	82.1
2020	2,732	2,585	2,439	92.9	87.9	82.9
2021	2,799	2,622	2,445	95.2	89.1	83.1
2022	2,869	2,655	2,457	97.5	90.3	83.5

Source: European Commission, 2016, p. 70 (cargo traffic calculated by author)

3.11.3 The Eurocontrol forecast is based on the interaction between supply and demand. They find the three most influential inputs to be economic growth, regulation, and overflight patterns. The 2016 forecast has been revised upward for the UK, to 2.7%. The Spanish forecast was also revised upwards to 6.7% whilst Germany remains stable at 2.7% and France and Italy have been revised downwards to 2.2% and 1.8% respectively. In terms of air freight, the all-cargo segment grew by just below 1% for the second year running and makes up 3.4% of the total IFR traffic in Europe.

3.11.4 Figure 4 shows the components of the Eurocontrol/STATFOR seven-year forecast.

Figure 4 Components of the STATFOR seven-year forecast



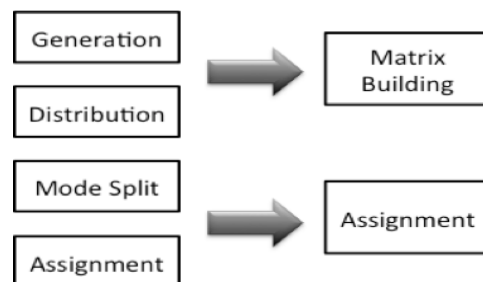
Source: Eurocontrol, 2016, p. 14

### 3.12 GB Freight Model

3.12.1 The DfT's GB Freight Model (GBFM) evolved from Kent County Council's ferry models of the early 1990s to an international and domestic multimodal national transport model. MDS-Transmodal documented the methodology used to forecast freight in 2004. In 2013, the DfT used external consultants to audit the model to assess its suitability and recommend improvements whilst a more refined freight modelling system is being developed<sup>9</sup>. The Institute for Transport Studies at Leeds University led the freight modelling methodology.

3.12.2 One of the outcomes of the work on the GB Freight Model was the STEMM Freight Model. The model uses the four-step transport forecasting model as a basis. However, the GB model combines the first two steps and the last two steps as shown in Figure 5 The two resulting steps are then used to allocate traffic to freight services – international, domestic multimodal, and domestic road.

Figure 5 GBFM compared to the four-step model

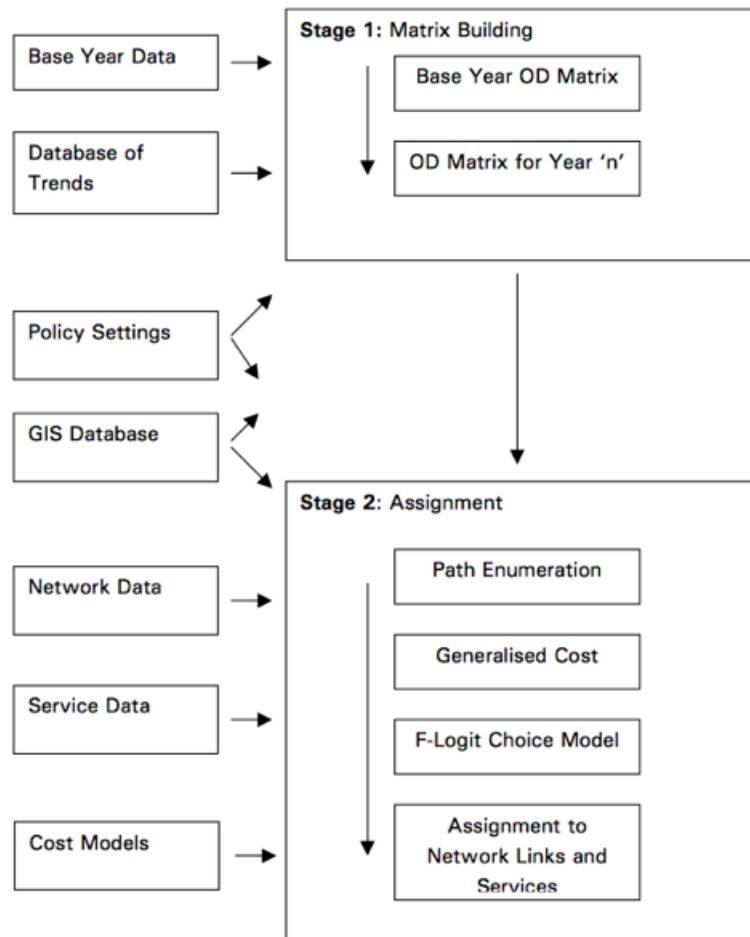


Source: MDS-Transmodal, 2004, p. 18

<sup>9</sup> <http://www.dft.gov.uk/rmd/project.asp?intProjectID=11780>

3.12.3 The two stages within the GBFM contain a number of processes as shown in Figure 5. The F-Logit specification, as shown in Figure 6, came from the STEMM project. The F-Logit calculates the probability that an alternative route will be chosen. The model contains a number of criteria that can be defined to show choices between pairs of alternatives. The assignment stage focuses on how multimodal systems are used. The model does not, however, forecast air freight traffic.

**Figure 6** GBFM processes



Source: MDS-Transmodal, 2004, p. 30

### 3.13 IATA

3.13.1 The IATA January 2016 Air Freight Market Analysis shows a global recovery in freight volumes with forecast growth predicted to be solid but modest (IATA, 2016a, p. 1). IATA sells their Airline Industry Forecast for around US\$1,500. The report provides detailed five-year traffic forecasts for more than 3,000 individual country-pairs, plus aggregate results at regional and global levels.

3.13.2 The forecast derives from the results of a survey of the industry's major airlines, civil aviation and airport authorities. 2013 freight tonnes and five-year forecasts for inbound and outbound freight are provided for over 1,000 international country pairs,

including aggregated values for six world regions, 17 world sub regions, and more than 900 country to sub region forecasts<sup>10</sup>.

### 3.14 ICAO

3.14.1 ICAO produces short to medium-term forecasts for total world air cargo traffic (Morrell, 2011). These forecasts are available at global, regional and route-group levels. ICAO uses a judgement-based consensus approach to forecasting, which combines forecasts from a range of other organisations and discussion with experts. The objective of their forecasts is to support commercial aviation development. In particular, ICAO aim to support airports with their planning issues.

### 3.15 NEAC

3.15.1 NEAC, the European model for freight transport, is a tool for analysing and forecasting national and international transport flows. As a forecasting model, NEAC uses a database of information on transport flows between regions, based on the specialisation of countries or regions. In addition to the supply and demand elements (gravity model based on supply factors of the exporting country/region and the demand factors of the importing country/region), barriers to trade such as transport costs, tariffs (or conversely free-trade zones) and cultural differences are taken into account. More specific NEAC models can be coupled with the database including:

- A trade model for forecasting of future trade flows
- A modal-split model (estimation and forecasting of modal-split)
- An assignment model (assignment of traffic flows on transport networks)
- A container forecasting model (estimation of containerised transport)
- An environment model (calculation of emissions resulting from transport)
- The EcoNEAC model (estimation of the effect of transport and infrastructure on the economy)

### 3.16 OAG

3.16.1 OAG produce medium-term air freight forecasts with a 10-year horizon. Their customised cargo flight data can be used to plan shipments, manage supply chain activities and monitor trends<sup>11</sup>. Prices available on application.

### 3.17 TRANSTOOLS

3.17.1 TRANSTOOLS, tools for transport forecasting and scenario testing, provides a European transport network model for passengers, freight, and intermodal transport. The TRANSTOOLS team say they have developed the most comprehensive European transport model available. The model is free although requires ARC-GIS and TRAFFIC ANALYST to run. The TRIP website<sup>12</sup> says the TRANSTOOLS Freight Demand Module consists of the following sub-modules:

- *The TRANSTOOLS Trade Module, which uses the ETIS O/D freight transport matrix. Its output is a forecast O/D matrix for freight including origin region, in-between trans-shipments and destination region, as well as transport mode at origin, in-between trans-shipments and at destination, commodity group and tonnes.*

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<sup>10</sup> <http://www.iata.org/publications/Pages/airline-industry-forecast.aspx>

<sup>11</sup> <http://www.oag.com/markets/cargo>

<sup>12</sup> <http://www.transport-research.info/project/tools-transport-forecasting-and-scenario-testing>



- *The TRANSTOOLS Modal Split Module for freight transport based on the model in NEAC. It adjusts the stable modal split resulting from the Trade Model. Its output is the ETIS freight matrix (a forecast O/D matrix including forecast modal split.*
- *The TRANSTOOLS Logistics Module. Based on SLAM, which is a module appended to the SCENES model, it evaluates the impacts of changes in the logistic and transport systems within Europe on the spatial patterns of freight transport flows, through changes in the number and location of warehouses for the distribution of goods. Its outputs are unimodal transport matrices used by the Assignment Module, and generalised and monetary costs per origin, destination and commodity type used by the Economic Module.*

3.17.2 The contact for this model is Dr. Chen, at The Netherlands Organisation for Applied Scientific Research (TNO), who was emailed on 17<sup>th</sup> March 2016. The email was forwarded to Dr Mandel of MKmetric. His response to a request for further information was that, in principle the tool does not allow forecasts for a single airport. It is also unlikely that TRANSTOOLS includes Manston although this was not specifically requested and would need to be checked. However, the air freight forecasting element of TRANSTOOLS is rudimentary, using fixed air networks, which, it seems, does not provide a realistic forecast.

### 3.18 WebTAG

3.18.1 The WebTAG modelling and forecasting guidance enables practitioners to produce adequate evidence to support the business case for major transport schemes (DfT, 2014, p. 1). The DfT propose a standard model structure for transport forecasting, consisting of a three step process:

1. Data collection
2. Modelling
3. Forecasting

3.18.2 This model is aimed at road traffic forecasting but has been included here for its standardisation and application in the UK by the DfT. The DfT prefer incremental models (2014, p. 7), where there is a more heavy reliance on observed data than on the mathematical specification of an absolute model. In the case of Manston Airport, it is impossible to base forecasts on current observable traffic since the airport closed in 2014. However, data is available for the years prior to its closure and this could be used as a proxy for observable data.

### 3.19 Game theory

3.19.1 Game theory aims to predict equilibrium outcomes, which lie at the intersection of the various players' strategies for winning the game. Essentially, a negotiated equilibrium is reached when there is no incentive, given the choices of the other parties, for any of the parties to change their strategy (Sebenius, 1992). Lenoir (1998) describes the air transportation system as chaotic, rendered so by the strategic behaviour of the actors in this oligopolistic sector. She says that game theory can be applied to try to make sense of what drives actors' decisions. Since the industry has a limited number of actors, the behaviour of one has consequences, in terms of pricing and total capacity, on the entire market. (Lenoir, 1998, p. 15)

3.19.2 In support of this premise, Balakrishnan (2008) describes the air transportation system as having multiple stakeholders with competing interests. Using game theory, she says, makes it, "*possible to develop algorithms for the scheduling (and rescheduling) of*

*air transportation resources that address issues of equity and incentives for gaming among airlines.”* (Balakrishanan, 2008, p. 3)

3.19.3 A few academics have considered the use of game theory in air transportation. In 2009, the California Management Review considered whether airports would expand or delay depending upon their competitor’s actions. D’Alfonso and Nastasi (2012) investigated contracts between airports and airlines. They looked at two competing facilities and three types of agreements, developing a multistage game showing whether competing airports and their dominant airlines decide would enter a contractual arrangement.

3.19.4 Saraswati and Hanaoka (2014) also looked at airport–airline cooperation using game theory. These authors considered a contract where an airport shares a percentage of its commercial revenue with an airline for a fixed payment. The objective was to observe how the revenue share allocation maximised profit for the airport but was also acceptable to the airline. Saraswati and Hanaoka, drawing on Starkie (2008), Fu *et al.* (2011) and Hihara (2012), note that cooperation between airports and airlines takes a number of forms:

- Long-term terminal leases
- Long-term negotiated charges for the use of airport facilities
- Signatory airline status in airports (where airlines have certain rights over airport use and capital improvement projects)
- Concession revenue sharing
- Airline ownership of airports
- An airport making a contingent payment to/from the airline, *“based on the difference between the realized load factor and the target load factor set at the start of the contract period.”* (Saraswati and Hanaoka, 2014 p. 17)

3.19.5 Aside from the airport-airline ‘game’, Ordonez and Stier-Moses (2010) used network games to model the interaction between agents who select routes to go from their origins to their destinations. Saeed (2012) and Krajewska and Kopfer (2009) look at game theory in the context of vertical and horizontal cooperation between independent freight forwarders. Ting (2009) uses game theory to consider competitive pricing in logistics services and Theys *et al* (2008) use this method to analyse cooperative networks in intermodal transportation.

## 3.20 Gravity models

3.20.1 Gravity models derive from the literature on international trade and the transport economics literature. They take the concept of gravity as an attractor and apply it to the transport sector. Gravity models assume links between origin and destination nodes (such as cities) and use this gravity to calculate traffic volumes. A friction factor is calibrated to show any impedance in the route<sup>13</sup>. The ‘pull’ between the two nodes (the origin and destination) is proportional to the size of the nodes (cities) and inversely proportional to a function of the distance between them.

3.20.2 York Aviation (2015) used a gravity model to forecast the airport destination of the excess air freight demand from the London system. Their premise is that if demand cannot be met in London, freight will be trucked to other airports. York forecast that a total excess tonnage of freight of 2.1 million that would have to go elsewhere by 2050 without airport expansion in the UK. This amounts to some 80,000 freighter movements

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<sup>13</sup> <http://www.princeton.edu/~alaink/Orf467F08/The%20Gravity%20Model.pdf>

(York Aviation, 2015, p. 15). They found that 34% would be trucked to Paris Charles de Gaulle, 19% to Amsterdam, and 18% to Frankfurt. The remainder would go to Birmingham (13%), East Midlands (8%) and Manchester (7%).

### 3.21 Conclusions from the literature review

3.21.1 Most modern transport planning is carried out by modelling demand and supply. Holguin-Veras and colleagues (2012) describe how poor understanding of freight transportation behaviours and a lack of data has ensured that few freight demand models are available to planners. A thorough understanding of how a freight system functions is necessary if a good model of that system is to be developed. Such an understanding comes from in depth discussions with both the users and providers of the system. As such, qualitative investigations with industry experts must form a key part of the development and population of a demand model.

3.21.2 Indeed, whilst focusing on airline traffic forecasting, Table 3 on page 21 provides a good summary of the advantage and disadvantages of the qualitative and quantitative methods available. According to Khan (2010, p. 73) only econometric modelling, trend analysis, and the three qualitative methods have been used to forecast air freight demand. However, as Table 3 shows, none perform well in the short, medium and long-terms.

3.21.3 Therefore, instead of providing a mathematical forecasting model, this review of the literature suggests a qualitative approach that aims to predict human and organisational behaviour. Indeed, the DfT (2014, p. 3) place a heavy reliance on an understanding of human behaviour in achieving realistic outputs. A qualitative approach that gathers the opinions of industry experts would allow areas of potential demand for Manston Airport to be identified. It is this type of approach that has been selected in the case of Manston Airport.

3.21.4 Whilst econometric models have been the forecasting method of choice by the DfT, Airports Commission and the EU, these are generally used to forecast passenger air traffic for a country or region. As the ACI (Airports Council International) says, “*Any airport wishing to apply an econometric forecasting approach is advised to begin by examining its historic traffic and survey data*” (ACI, 2011, p. 25). This suffices at country level or for established airports where the past can be used to predict behaviour in the future. However, in the case of Manston Airport, closed for several years and lacking investment for many more, this approach is **not** appropriate. Any attempt to build an econometric model would have to establish criteria whereby a proportion of the total predicted UK air freight traffic was ‘diverted’ to Manston. However, deciding upon the proportion to divert to Manston raises significant problems.

3.21.5 Therefore, instead of providing a mathematical forecasting model, this review of the literature suggests a qualitative approach that aims to predict human and organisational behaviour. Indeed, the DfT (2014, p. 3) place a heavy reliance on an understanding of human behaviour in achieving realistic outputs. A qualitative approach that gathers the opinions of industry experts would allow areas of potential demand for Manston Airport to be identified. It is this type of approach that has been selected in the case of Manston Airport.

*Table 3 Attributes of aviation forecasting techniques*

	Qualitative methods			Time-series				Causal
	Exec. Judg' ment	Market research	Delphi	Annual Ave. Growth	Expo. Smooth- ing	Linear Trends	Moving Ave	Regre- sion
Accuracy:								
0-6 months	Good	Good	Fair/ good	Fair	Good	Fair	Fair	Good
6-24 months	Fair	Fair/ Fair/ poor	Fair/ good	Fair	Fair	Poor	Fair	Fair/ good
5 years	Poor	poor	Fair	Poor	Poor	Poor	Poor	Fair
Suitability for forecasting:								
Traffic growth	Good	Good	Good	Good	Good	Good	Good	Good
Traffic reaction	Poor	Fair	Poor	n/a	n/a	n/a	n/a	Good
New routes	Poor	Poor	Poor	n/a	n/a	n/a	n/a	Poor/ fair
Ability to identify turning points	Poor/ fair	Fair/ good	Fair/ good	Poor	Fair/ poor	Poor	Poor/ fair	Good
Ready availability of input data	Good	Fair/ poor	Poor	Good	Good	Good	Good	Poor/ fair
Days required to forecast	1-2	90+	30- 180	1-2	1-2	1-2	1-2	30-90
Cost	Very low	Very high	Mod.	Low	Low	Low	Low	High

Source: Adapted from Doganis, 2002, p. 234

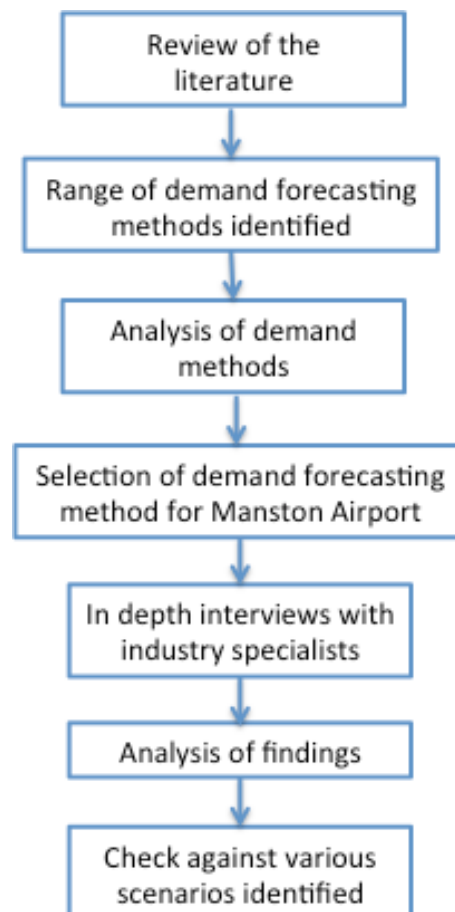
## 4 Research methodology

4.0.1 Forecasts are our best assessment of how the future will unfold. Whilst no forecast can guarantee to be fully accurate, we can make certain that our assumptions are unbiased, robust and clearly described so that interested parties can assess the resulting output. This section therefore describes the methodological approach taken to complete this research project so that the reader can understand the processes involved in compiling an assessment of demand for Manston Airport.

### 4.1 Research design

4.1.1 The aims of this research project were firstly to identify a suitable method by which to assess air freight demand for Manston Airport. This work is described in the review of literature shown in the previous section. The second aim was to use the qualitative approach identified through the review of the literature to demonstrate the potential demand for Manston Airport. As such, research was designed to meet these aims and was carried out using both primary and secondary data. Figure 7 shows the design of the research project. It should be noted that a comparative case study approach was not deemed possible, as no airports in sufficiently similar circumstances were identified.

*Figure 7 Research design*



## 4.2 Interviewee identification

4.2.1 This qualitative study necessitated discussion with experts in the field. This was essential if an overview of the potential demand for Manston Airport could be collated.

4.2.2 The first step at this stage of the research process was therefore to identify potential interviewees. To this end a list of organisations was compiled, including:

- Kent transport infrastructure
- Government and public sector
- Industry associations
- Freight forwarders and consolidators/integrators
- Local import/export businesses
- Cargo airlines

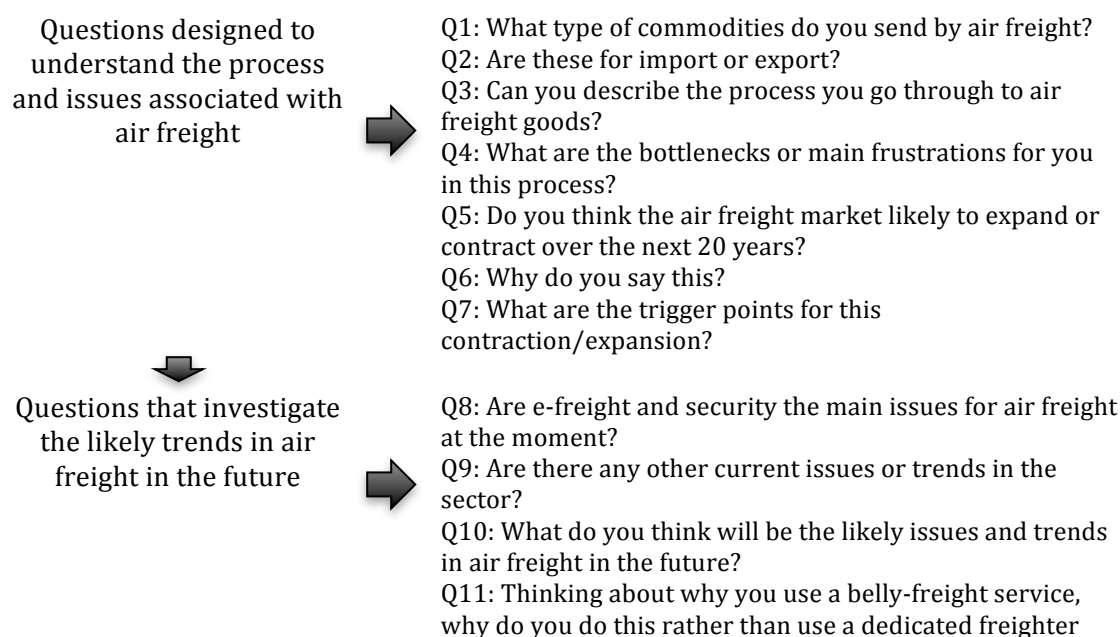
4.2.3 A full list of interviewees is shown in Section 4.4. These prospective interviewees were contacted by email in the first instance to arrange face-to-face interviews wherever possible. If not, telephone or email communication was used. The objectives for the primary data collection phases of this work were to:

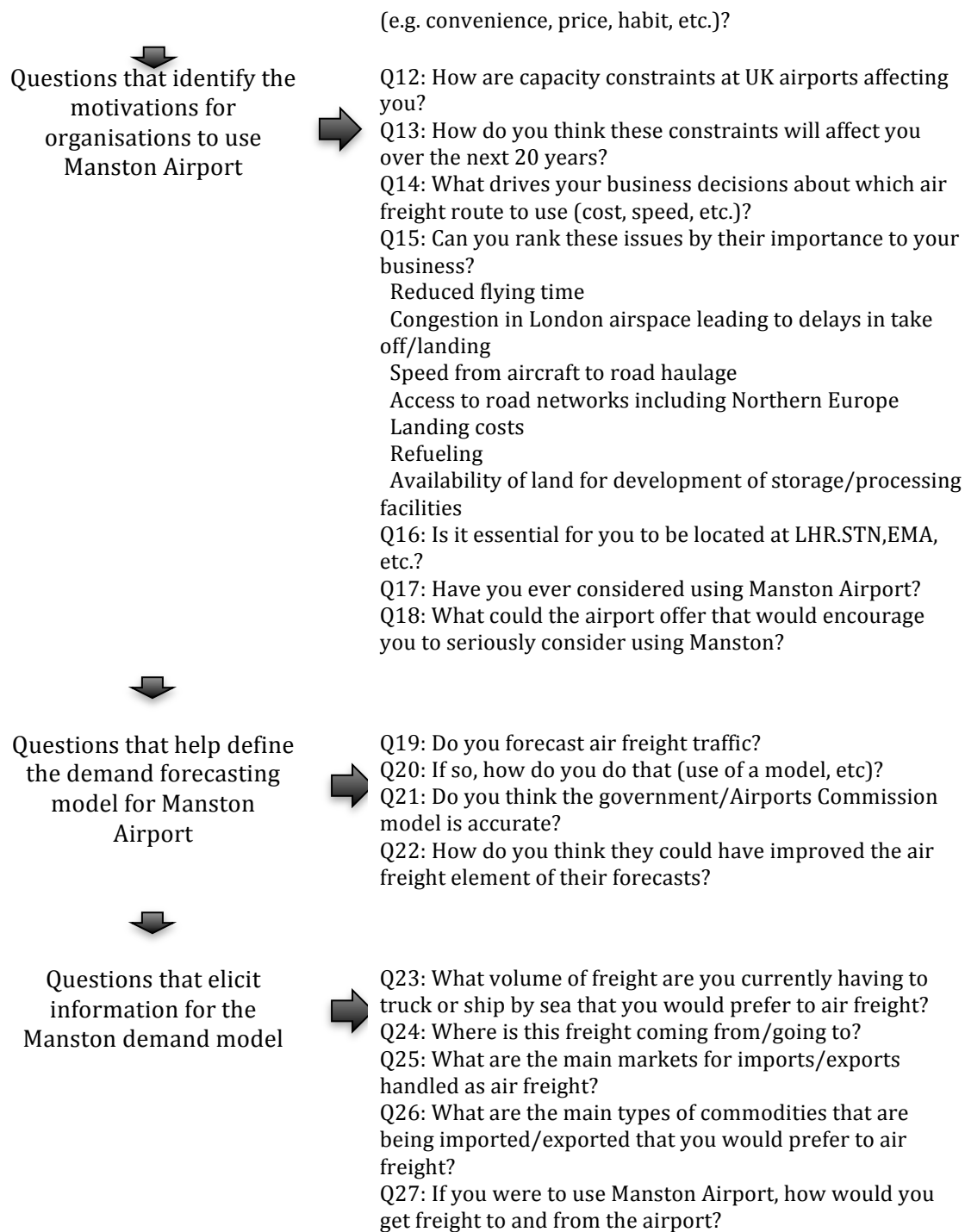
- Understand the processes and issues associated with air freight
- Investigate the likely trends in air freight in the future
- Identify what might motivate airlines and other organisations to use Manston Airport
- Provide information to use in preparing the forecast for Manston Airport

## 4.3 Semi-structured interview schedule design

4.3.1 A semi-structured approach was used to collect rich data from the informants whilst keeping the interviews on track to ensure all objectives were met. Questions were devised under each of the objective headings shown above as detailed in Figure 8. The interview schedule was used as a guide and depending on their expertise, not all questions were asked of all categories of interviewees.

**Figure 8** *Categories of interview questions*





## 4.4 Interview data collection

4.4.1 The data collection phase of this work commenced in mid April 2016. Both primary and secondary data were collected using a variety of methods. Primary data involved interviewing key industry experts by means of face-to-face, telephone or email interviews. In line with the qualitative method chosen, the collation of primary data was the focus of the research. Some 93 primary contacts from an in-house database were initially emailed and interview appointments were made with the 24 participants who responded, as shown in Table 4. On some occasions, interviewees were contacted more than once. In these instances, the date of the first discussion is shown in the table.

4.4.2 Transcripts have not been made available as part of this report due to the confidentiality of the interviews and the commercial sensitivity of the data collected. Responses have been incorporated into the findings presented in Section 5.

*Table 4 List of interviewees*

Name of Organisation	Contact	Date	Method
<b>ACC Shipping Ltd</b>	Managing Director	27 April 2016	Telephone
<b>Active Transport Ltd</b>	Managing Director	26 April 2016	Telephone
<b>Aeroconsult</b>	Axel Grossmann	13 October 2016	Email
<b>AvMan Engineering (Modern Jet Support)</b>	Chairman	20 May 2016	F2F
<b>Baltic Air Charter Association</b>	Past member	13 May 2016	F2F
<b>British International Freight Association (BIFA)</b>	Policy & Compliance Advisor	26 April 2016	Email
<b>Chartered Institute of Logistics and Transport (CILT)</b>	Chairman, Aviation Policy Forum	28 April 2016	Telephone
<b>Coyne Airways</b>	Sales & Development Project Manager	28 April 2016	Telephone
<b>Department for Transport, Department for Aviation Statistics</b>	Aviation and Ports Analyst	27 April 2016	Email
<b>DHL</b>	Director DHL Air Ltd	23 May 2016	Telephone
<b>Equinus Transport Consultancy</b>	Bob Parsons	7 October 2016	Email
<b>Eurotunnel</b>	Public Affairs Director	21 April 2016	Telephone
<b>FedEx Express</b>	Senior International Legal Advisor	3 June 2016	Telephone
<b>Freight Transport Association</b>	Head of Global Policy	22 April 2016	Telephone
<b>Infratil Airports Europe</b>	Former Chief Executive	27 April 2016	F2F
<b>Locate in Kent</b>	Chief Executive	20 April 2016	F2F
<b>Polar Helicopters</b>	Operations Manager	27 October 2016	F2F
<b>Securitas</b>	Operations Manager - Aviation	8 June 2016	F2F
<b>SmartLynx</b>	Vice President - Technical	27 November 2016	Telephone
<b>Taft International</b>	Owner	6 October 2016	F2F
<b>TG Aviation</b>	Manager	23 October 2016	F2F
<b>Transport for London</b>	Principal Transport Planner - Aviation	8 June 2016	F2F
<b>Visit Kent</b>	Chief Executive	26 April 2016	Telephone
<b>White's Transport Ltd</b>	Operations Director	28 April 2016	F2F



## 5 Findings

5.0.1 The following sections outline the key findings from the research undertaken. The section commences with a summary of the categories of questions posed to interviewees as shown in Figure 8 on page 23. A section that details the freight findings that will help define the demand for Manston Airport follows this initial summary. The findings relating to freight commence with a section on trucking issues before detailing the findings relating to perishable goods, fish and live animals, other import and export markets, integrator demand, and military and humanitarian flights. The freight findings conclude with an analysis of freight at Frankfurt Main Airport.

5.0.2 The freight findings section is followed by findings relating to demand for passenger travel, with sub-sections presenting specific types of passenger airline covering KLM, low cost carriers, resident carriers, charter flights, and Dover cruise terminal related findings. The section concludes with more general findings relating to other potential income streams for Manston Airport.

### 5.1 Findings by category of interview question

5.1.1 This section provides a summary of the responses to each of the interview schedule questions by the category allocated to these questions. These categories cover the process and issues associated with air freight, likely trends in the sector, motivations to use Manston Airport, and demand data for Manston.

#### The process and issues associated with air freight

##### **Q1: What type of commodities do you send by air freight?**

5.1.2 Interviewees were involved with a range of commodities including oil and gas equipment, hazardous goods, commercial goods such as clothing and electronics, urgent aircraft parts, pharmaceuticals, and electronics. In terms of markets, one interviewee said, *“The USA is our strongest market with the main hubs in Atlanta, New York, Chicago and Houston. We fly from Heathrow and Manchester”* (ACC Shipping). Another interviewee said, *“Most aircraft parts come from the US, Asia, and Russia. They currently come into Heathrow, Stansted, Luton and also East Midlands. For example, the Iron Maiden plane went tech at Stansted and required a new engine.”* (Active Transport) Another interviewee said their main markets, *“are Afghanistan, Azerbaijan, Iraq, and Georgia. Services to Baku in Azerbaijan are growing. Iraq is the next big market but already rates look very cheap. Africa is the place to look at with limitless opportunities. People will start ordering phones and electronics, etc.”* (Coyne Airways) Another interviewee said, *“Nigeria is a growing market.”* (White Transport)

5.1.3 For the integrators, their main market is high value, low weight cargo. In terms of pricing, one interviewee said, *“Charges are around 80 pence per kilo from Amsterdam or £1.20 from Heathrow so it works out the same if you have to truck to Amsterdam”* (ACC Shipping). In terms of tonnage, there was a wide range between 90 tonnes and 20,000 tonnes per year for the smaller shippers to vast amounts for the integrators.

##### **Q2: Are these for import or export?**

5.1.4 Answers to this question varied from 99.9% export (Coyne Airways) to almost all import (White Transport).

##### **Q3: Can you describe the process you go through to air freight goods?**

5.1.5 The process used to air freight goods varied depending on the type of shipper. For airlines, they tend to pick up bookings from a freight forwarder. One respondent said, *“freight is tendered through a handling agent who trucks to Amsterdam”* (Coyne Airways).

#### **Q4: What are the bottlenecks or main frustrations for you in this process?**

5.1.6 Most of the interviewees who answered this question talked about problems at Heathrow and at the Channel crossings. Many also discussed getting bumped from belly cargo. This means that freight booked onto a passenger flight to be carried in the hold is left at the departure airport without uploading onto the aircraft and has to wait for a later flight. Of Heathrow, some examples of interviewee comments include:

*“Delays happen at Heathrow where trucks are queuing for at least three hours. Drivers get very frustrated. It is not going to get better – I just can’t see how it will.”* (Coyne Airways)

*“Heathrow is the worst as it is the busiest. There is at least a two or three hour wait at all airports.”* (Active Transport)

*“It is nigh on impossible to get a dedicated freighter into Heathrow and you would have to go to Prestwick or Stansted”* (Active Transport)

*“The biggest problem is congestion and the impact in terms of delays with customs and getting equipment/cargo in and out of airports and moving the schedule. It can take more than four hours with BA, with drivers sitting around for that time. It is expected to get worse in the next 20 years as there will still be growth before any new infrastructure comes on line.”* (ACC Shipping)

5.1.7 Compounding the delays at Heathrow is the issue of security clearing huge amounts of outsized freight. One interviewee (Securitas) reported that at present there are no UK facilities for clearing outsized air freight so items arriving in the UK are loaded onto trucks and transported by road to northern Europe, including Brussels, Liege, Amsterdam and Rotterdam, for security clearing. In Europe, sniffer dogs and air samples from containers are used to check for a variety of illegal goods including explosives, drugs and money. There are currently no canine units in the UK but Securitas is in negotiation with the UK Government to approve the use of dogs in security checking outsized freight.

5.1.8 Talking about the channel crossings, interviewees said:

*“We were trucking freight to Amsterdam but have been experiencing increasing delays using the Channel crossings. We now use Harwich to ship freight to Holland. Bottlenecks and main frustrations are that there is a lot of trucking to the continent and getting out of the UK through Calais is a nightmare. We have lost a lot of cargo stuck in Dover.”* (Coyne Airways)

*“Calais is a nightmare. We won’t go near after dark, which often means parking up early in Belgium, losing three hours as the driver has to park up early and wait until morning.”* (Active Transport)

5.1.9 Discussing getting bumped from belly cargo, interviewees said:

*“As there are no slots in the UK, flights are often bumped for two or three flights. If this is likely then parts for aircraft gone tech will be airfreighted to Europe [mostly Luxembourg, Amsterdam, Frankfurt, Frankfurt Hahn, Brussels and Leipzig] and trucked to wherever the aircraft is in the UK.”* (Active Transport)

*“We want the best service for the cheapest price and you have to go with what your customer wants even though we get bumped from belly-freight and the customer moans.”*  
*“Insuring that traffic does not get bumped off is a big problem, particularly to Dubai. Dubai is not really an export country – purely import. It is really a price priority so anyone who pays a higher price gets on the flight. Sometimes cargo will get changed from London to Amsterdam, which will go by rail or truck.”* (ACC Shipping)

**Q5: Do you think the air freight market likely to expand or contract over the next 20 years? Q6: Why do you say this? Q7: What are the trigger points for this contraction/expansion?**

5.1.10 Most of the interviewees who answered this question thought the market would expand although there is considerable pressure on price for air freight carriers. Interviewees mentioned the potential effect of Brexit and also change in fuel price as trigger points for contraction/expansion. One interviewee said, *“We expect general growth in movement of freight. There is the referendum but most of our work is from outside the EU.”* (Active Transport) Another said, *“The market is likely to expand but it doesn’t feel like that at the moment. There was a respite with the fuel price being lower but people will go out of business and start parking freighters if the price goes back up. This is except for the Middle East. They are ordering planes and flying to more and more places.”* (Coyne Airways)

#### Likely trends in air freight

**Q8: Are e-freight and security the main issues for air freight at the moment?**

5.1.11 Most interviewees agreed that security was an issue for the sector. One said, *“It all comes down to security – preventing smuggling and terrorism.”* (Active Transport) Another said, *“The main issues are around physical load security, particularly around the issues with Calais”* (White Transport). The interviewee from Securitas explained that having a dedicated canine detection unit at a UK freight specialist airport would make a considerable difference to the security issues that are currently being experienced. At the moment, it is estimated that between 30 and 120 trucks are dispatched from Swissport Manchester and Heathrow each day for security checking outsized freight. If this situation is repeated at other airports, the number of truck movements per year involved is substantial, potentially in the region of 50,000 per year.

5.1.12 Whilst e-freight was considered an issue, it did not seem to be a major problem for interviewees although one interviewee said, *“E-freight is a topic. There are difficult deadlines for implementation and they get missed. IATA e-freight makes it difficult to get documentation up to standard. However, it will cut down paperwork eventually.”* (Coyne Airways)

**Q9: Are there any other current issues or trends in the sector?**

5.1.13 Some interviewees reiterated the problems with getting bumped from belly-freight (as shown in Q4). Other issues mentioned were safety, particularly with the carriage of lithium batteries, and reducing yields. One interviewee said, *“They [lithium batteries] need to be transported but there are moves to ban them from passenger flights.”*

*The US is pushing ahead with this. Cargo airlines are not too keen either. There are more and more things palletised with batteries included. (Coyne Airways)*

**Q10: What do you think will be the likely issues and trends in air freight in the future?**

5.1.14 Interviewees generally think there will be a continuation of the current situation; not imagining improvements or major changes in the way the sector operates. Some interviewees mentioned the reduced capacity for freight on the A380 passenger aircraft. One interviewee was concerned that the industry would concentrate in the hands of fewer operators, particularly those from the Middle East (Coyne Airways).

**Q11: Thinking about why you use a belly-freight service, why do you do this rather than use a dedicated freighter (e.g. convenience, price, habit, etc.)?**

5.1.15 The feeling was generally that the use of belly-freight was due to availability. One interviewee said, *“Not many freighter routes operate now apart from FedEx and UPS. There are less and less - maybe only a handful per week to and from the US to UK whereas there are hundreds of passenger flights.”* (Coyne Airways) This interviewee also said that, *“Most intra-Europe passenger flights are narrow bodied so can’t take much weight. The market has sprung up flying around Europe. Few routes are flown by wide-bodied aircraft so there are freighter hops around Europe every night.”*

**Motivation to use Manston Airport**

**Q12: How are capacity constraints at UK airports affecting you?**

5.1.16 The issues with Heathrow and a general lack of slots in the South East for freighters were affecting interviewees, as shown in Q4.

**Q13: How do you think these constraints will affect you over the next 20 years?**

5.1.17 Interviewees found it difficult to respond to this question apart from to express a concern that the situation was unlikely to improve for some decades.

**Q14: What drives your business decisions about which air freight route to use (cost, speed, etc.)?**

5.1.18 For those freight airlines, business decisions are driven by where they can make money. One said, *“If we can fill an aircraft at a good enough rate to make money we will fly”* (Coyne Airways).

**Q15: Can you rank these issues by their importance to your business?**

- **Reduced flying time**
- **Congestion in London airspace leading to delays in take-off/landing**
- **Speed from aircraft to road haulage**
- **Access to road networks including Northern Europe**
- **Landing costs**
- **Refueling**
- **Availability of land for development of storage/processing facilities**

5.1.19 Generally cost, speed and access to road networks were considered important. One interviewee said, *“Speed is very important to business. The speed at which we get*

*cargo from LHR onto a plane and to a destination is a combination of a number of things including queuing times.” (Coyne Airways) Another said, “Cost is always the most important.” (ACC Shipping) One interviewee talked about the potential cost saving of using Manston Airport, saying, “If heading south, there is a saving to be made on time and fuel. The saving on fuel burn from Manston is likely to be, depending on aircraft type, compared to EMA headed south-east, 45 minutes to one hour and therefore USD 2,000 to 3,000 per flight and more as fuel prices increase. Total cost of a flight is generally 75% fuel.” (Coyne Airways)*

**Q16: Is it essential for you to be located at Heathrow, Stansted, East Midlands, etc.?**

5.1.20 Most interviewees felt that it was not too important for sales departments particularly to be located at these airports. Some interviewees have their offices in Central London.

**Q17: Have you ever considered using Manston Airport?**

5.1.21 Some interviewees had previously used Manston and their experiences had been good. These people generally expressed the opinion that it would be a benefit to reopen Manston. One interviewee said, *“I speak to people all this time who say it would be useful to have Manston operating.”* (White Transport) Another said, *“we miss Manston Airport and hope it will return”* (Active Transport). Others had not previously considered using the airport, with one interviewee saying, *“we have never seen any publicity advertising the airport.”* (ACC Shipping)

5.1.22 An email received from the Manager of Charter Sales at National Airlines based in Orlando, Florida, dated 26<sup>th</sup> January 2017 reads:

*“Having worked for the Manston regulars such as Das Air, African International (Intavia) and MK Airlines along with many other carriers while I worked for Chapman Freeborn in the UK, MSE was always our first choice for freighter charters.*

*When it closed it was a great loss!”*

*I’m sure you could also reach out to the likes of Magma, Cargo Logic Air and ANA as they would be keen to bring the African flowers back in to MSE.”*

**Q18: What could the airport offer that would encourage you to seriously consider using Manston?**

5.1.23 Some interviewees said that the road links were excellent and could not be improved. Others talked about airport operating hours with one interviewee saying, *“it’s not going to work if you can only fly between 10.00 and 21.00”* (Active Transport). Others talked about competitive landing fees. Some talked about the airport needing to be easy to use and well equipped with the latest technology including scanning equipment. Some mentioned having warehousing of all sizes available. One airline felt that Manston should find a niche such as becoming well-known perishables centre (Coyne Airways).

**Demand model and data for Manston Airport**

5.1.24 Generally, interviewees were either unaware of airport demand forecasting models for air freight or felt that they were too difficult to construct. The findings gathered from the interviewees and other research that help to define the demand for Manston are detailed in the following sections.

## 5.2 Freight-focused findings

5.2.1 Many interviewees talked about the potential effect of Brexit on the freight market with a general feeling that with a decline in the value of sterling, export markets will be stimulated. At present, Eurotunnel, for example, carry more imports than exports and 45% of trade is with Europe where goods include those destined for the automotive and high tech sectors (Eurotunnel). However, continued uncertainty after the referendum over the terms of the UK's exit from the UK may negatively affect trade.

5.2.2 The main issues for interviewees were security, smuggling and terrorism (Active Transport, ACC Shipping). Several interviewees mentioned escalating problems with the carriage of lithium batteries. Scanning oversized items was also cited as a problem for all airports. Locating a canine detection unit at Manston would alleviate many of the delays associated with security clearing air freight (Securitas). Indeed, in term of Manston, one interviewee believed the airport must have, *"all the mod cons and equipment including warehousing of all shapes and sizes, and security screening for all sizes of cargo"* (Coyne Airways).

5.2.3 One interviewee (Coyne Airways) felt that success at Manston depended upon identifying a niche market and becoming known for excellence. In particular, suggestions included a perishables centre, handling of live animals, easy access for charter flights, and handling cargo that is not necessarily straightforward (Coyne Airways).

5.2.4 Several interviewees said that it is almost impossible to get a dedicated freighter into Heathrow due to slot restrictions. Delays and queuing to off load and upload freight at Heathrow was reported by many interviewees to be considerable. One interviewee said, *"It is not going to get any better. I can't see how it will"* (Coyne Airways). It is perhaps because of these frustrations that one interviewee reported feeling that life will continue to be difficult for air freighters, with Air France, for example, ceasing to use freighters (Coyne Airways).

5.2.5 However, freight is frequently bumped from passenger aircraft, often up to three times, before goods are uploaded onto a flight. If it is impossible to wait, if items are needed urgently such as parts for aircraft, then they are loaded onto a flight to Europe and trucked back to the UK (Active Transport, ACC Shipping). One interviewee (ACC Shipping) found that bumping from passenger aircraft was particularly problematic on flights from Dubai. He felt this was because Dubai is not generally an export market and so anyone who is prepared to pay a premium price would get priority.

5.2.6 One interviewee felt there had been a respite due to lower fuel prices making operations more cost effective (Coyne Airways). He also felt that Middle Eastern carriers would gain advantage over European based operators because of the difference in fuel price. Operators from the Middle East, *"are ordering planes and flying to more and more places"* (Coyne Airways). The interviewee felt that the industry is worried about the expansion of Middle Eastern carriers but that, since it is a free market, nothing can be done. He felt that, *"full liberalisation of flying rights would be good but would benefit those with the money"* (Coyne Airways).

5.2.7 If freight was banned from Heathrow or conditions for freight operators was made more difficult, then other airports that could handle freight would benefit (Coyne Airways). Manston Airport could benefit. Transport links to Manston are considered to be good with one interviewee (Active Transport) saying that even with road diversions

access was “brilliant”. One key issue reported by an air freight operator is easy airport access for cargo. He said, “that would be a big thing” (Coyne Airways). Another interviewee talked about Manston’s location close to mainland Europe as an advantage (DHL). One interviewee (Taft) who has been in road haulage in Thanet for thirty years, stated that his view has always been that Manston is perfectly located to become northern Europe’s premier hub for air freight.

5.2.8 The interviewee from Transport for London (TfL) discussed the expected increasing pressure on Stansted Airport for passenger flights. TfL are working hard to provide surface links for passengers from London to Stansted, which is predicted to increase demand. In this case, freight may be squeezed out of the airport as slots and handling become more focused on the passenger market. TfL undertook an extensive exercise as part of the work to define the need for the proposed Estuary Airport. This work shows that almost 54,000 additional freight movements per year would be required in the South East by 2050 with current infrastructure operating at maximum capacity.

5.2.9 It should be noted that these figures were prepared before the announcement of the Government’s preference for an additional runway at Heathrow. However, even with additional runways at Gatwick and Stansted (shown in the column headed 2x2x2 – two runways each at Heathrow, Gatwick and Stansted), the additional freight requirement is in the region of 33,000 movements per year by 2050.

5.2.10 TfL specifically mention Manston in their 2013 report, stating that, “**around 14,000 freighters a year could still be accommodated in the vicinity of London by using capacity at airports such as Manston, which already handles some long haul freighters**” (2013, p. 7). Without sufficient air freight capacity in the South East, cargo is trucked to and from northern European airports, putting pressure on the Channel crossings and on the surrounding road network, particularly when delays occur and trucks have to be parked in Operation Stack. The following section discusses the trucking activity and the implications for Manston Airport.

#### Trucking activity

5.2.11 Manston is ideally located for airport-to-truck and truck-to-airport consolidation for cargo destined for or originating from continental Europe. Due to its location if heading south and quick turnaround times, the location of Manston is considered to save time and money by many interviewees. Fuel savings compared to East Midlands were likely to be in the region of \$2,000 to \$3,000 and more as fuel prices increase (Coyne Airways). Total costs are generally around 75% fuel so this is a considerable saving. As well as fuel savings, there are savings to be made in terms of crew flight time limitations (Baltic Exchange). Indeed, one interviewee believes that, “*Manston could be one of the best cargo airports in Europe if not further afield*” (Taft).

5.2.12 Almost all interviewees talked about the delays at the Channel Crossings and the frustrations this causes. The interviewee from Eurotunnel felt there had been a move towards air freight during 2016 due to the migrant crisis in Calais. During the crisis, it was impossible to enter Calais after dark because of attempts to board trucks. Drivers were forced to park overnight in Belgium, losing around three hours at night and several in the morning (Active Transport). The frustration experienced by hauliers struggling with border controls and transport security is likely to drive them to consider air transport but pricing is key to remodelling the freight market (Eurotunnel and Active Transport). Nonetheless, Eurotunnel have three shuttle trains on order that will all be in service by 2018.

5.2.13 There are significantly marked seasons within the Channel crossing freight market with the end of the year being substantially busier to meet the Christmas demand (Eurotunnel). Conversely, the summer period, especially August, is much quieter as factories shut down production. Generally Eurotunnel find freight traffic busier mid week; weekends are busier for passenger traffic. However, one of the hauliers (White's Transport) stated that there were no large seasonal variations since organisations are now mainly using JIT.

5.2.14 One interviewee (Baltic Exchange) felt that the UK trucking industry would benefit from the reopening of Manston Airport. The sector would see a reduction in costs, less congestion at the Channel crossings and also fewer security risks, uplift of freight would be in the UK, and the ability to offer livestock delivery from the airport as was the case in the 1980s, rather than on long pan-European road transport. Indeed, one of the haulier interviewees (Taft) observed that capacity issues at Heathrow have resulted in the Lufthansa Cargo operation shrinking over the years to a fraction of its former size.

5.2.15 There is a considerable volume of business for road hauliers willing to take goods from the UK to Europe for air freighting, mainly from Frankfurt (Taft). There is also a large amount of return business. However, according to this interviewee, there is very little business for hauliers picking up large loads from freighters landing in the UK for delivery within the UK. There is also very little business for hauliers transporting goods within the UK from a manufacturer to an airport (Taft).

5.2.16 Turnaround times and delay at airports are crucial for airlines and hauliers. The journey by road from Manston to Heathrow takes two hours on average. The time taken to load can vary from two hours to 10 hours, depending on what else is going on at the airport. The journey from Manston to Frankfurt takes eight hours, which is just within a driver's permitted 10 hours. However, because of historic problems at Calais, the return journey can often be subject to delays due to border and police controls. This means drivers who have exceeded their permitted driving hours have to wait around until they are legally able to drive again. One interviewee said that, *"the advantage of Manston is that it might well remove quite a lot of HGVs carrying air cargo from getting caught up in French industrial action or perhaps in the future by UK/EEA customs checks after Brexit, and would bring quite a lot of cargo into a single UK airport from which domestic distribution can take place – whether that is by smaller cargo flights, rail freight or continuing movement by HGVs."* (Equinos)

5.2.17 Taft International provided the three-hour trucking times from Manston. As Figure 9 shows, trucks can reach Basingstoke to the west, Northampton to the northwest, and Ipswich to the northeast within three hours. The Lower Thames Crossing, when it opens, will increase this area, particularly to the northeast.



Figure 9 Three hour trucking times from Manston

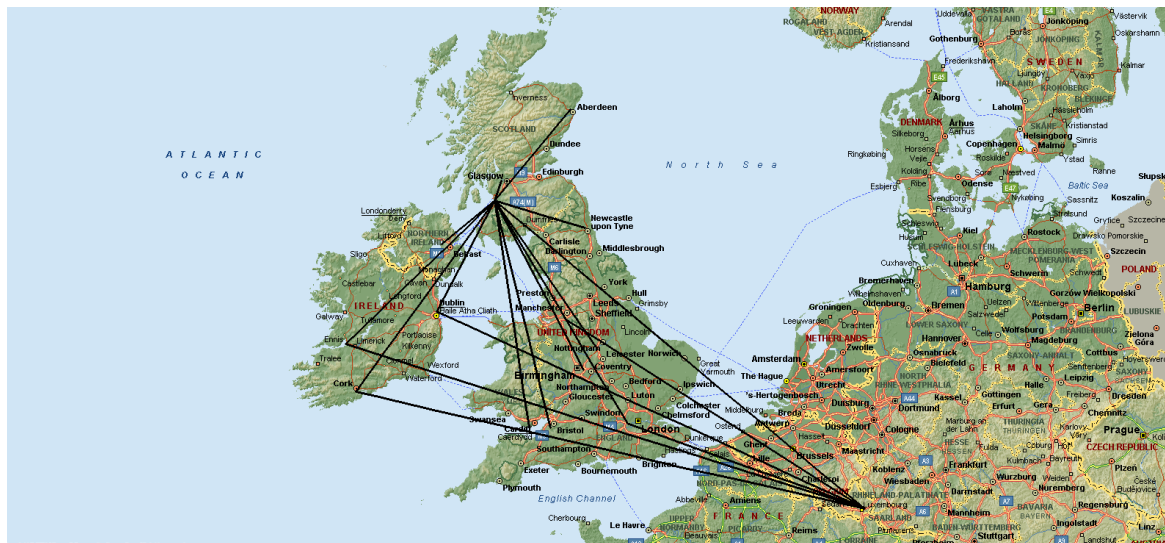


Source: Taft International

5.2.18 One interviewee provided details of the trucking activities of Cargolux, Cathay Pacific and Lufthansa. The following maps show the origins/destinations of freight. These origins and destinations are shown as a direct line on the maps although, of course, all truck movements involve either a ferry or tunnel crossing thus passing very close to the Manston site. About two-thirds of the HGVs use ferries rather than Eurotunnel (Equinos). He also said, *“I suggest that because of Manston’s position with sea on three sides that any use of rail might benefit by considering how marine intermodal freight is distributed.”* (Equinos)

5.2.19 Cargolux has hubs at Prestwick and Luxembourg and Figure 10 shows the destinations to where this freight is trucked.

Figure 10 Cargolux trucking



Source: Bob Parsons

5.2.20 Cathay Pacific has hubs at Heathrow and Manchester and Figure 11 shows the trucking movements from these two hubs.

Figure 11 Cathay Pacific trucking



Source: Bob Parsons

5.2.21 Figure 12 shows Lufthansa's trucking from its hub in Frankfurt.

**Figure 12** Lufthansa trucking



Source: Bob Parsons

5.2.22 In terms of mail, Figure 13 shows rail movements between mail centres in dark red and air movements in blue.

**Figure 13** Royal mail air and rail



Source: Bob Parsons

## Perishable goods

5.2.23 East Kent is served by the port at Dover and by the Channel Tunnel. The Channel Tunnel does not publish or generally collect data on the type of goods being carried in the 1.5 million trucks per annum who currently use their services. They predict the number of truck movements through the tunnel will rise to two million by 2020. However, the company believes that goods transported through the tunnel include food and other perishable goods. The Port of Dover carry larger numbers of trucks that also carry perishables.

5.2.24 In the short and medium-term, there is clear demand for perishable goods particularly fruit, vegetables, and flowers with many respondents mentioned this category of air freight. The perishable market was a staple for Manston, and the airport, with reduced flying time compared with other airports, has a reputation for the speed at which cargo can be offloaded and on the road. One interviewee, who had operated successfully from Manston hauling mainly perishables, confirmed that the unloading operation was the quickest he knew (Taft). However, underinvestment by previous owners had caused constant problems because equipment was old and unreliable.

5.2.25 Whilst the current UK air freight model is for shippers to preference belly-hold cargo, this can take up to a week to arrive and dispatch from some of the Country's airports. This research shows how the frustrations associated with this model are impacting all levels of the supply chain. It seems likely, therefore, that the model is set to change, much as the model for passenger flights changed some decades ago. The low cost carriers now dominate many airports, operating point-to-point to offer competitive prices to their customers. As Sales says:

*"In today's aviation world, airports have become the economic drivers of business and industry and the service on the ground for both passengers and freight has become very competitive, especially when customers have alternative choices.*

*For air cargo, it is the minimum time spent on the ground before and after the flight that can make a particular airport attractive and will play a role in the ultimate selection by the forwarders and consolidators, who will mostly determine how much cargo is directed to and from a particular airport."*  
(Sales, 2013, p.43)

5.2.26 In terms of business support, written evidence submitted by David Brown, Group Supply Chain Director Finlays Horticulture, part of Finlays Horticulture Investments Ltd dated 16 January 2015 says the following:

*"As a previous large customer to the services of Manston airport, we felt it important that Finlays wrote to explain their previous business and ongoing support for Manston as an infrastructure hub for UK airfreight importation.*

*Finlays had been a customer of Manston airport through its various ownerships for a period of approx 17 years up to its closure a few months ago. Finlays brought in a large quantity of freight (approx 400t) on various carriers weekly through the airport, as they had become specialists in handling perishable cargo. Since Manston's closure this Finlays cargo (and other importers cargo) has been transferred to other London airports increasing their traffic, and placing strain on their resources to deal with an*

*additional 1000 tonnes each week. Cargo capacity constraints continue to mount at airports in the south east of England, which has adversely affected our business. The main factors we see specific to Manston are as follows:*

- Manston were unique in being able to offer such a quick turnaround of getting airfreight onto lorries, with suitable perishable handling facilities, and flexibility in dealing with freight day or night. The freight that we now have arriving at Stansted (approx 2 hours closer to Finlays sites by lorry than Manston) is regularly arriving 6 hours later than the equivalent Manston vehicles.*
- Manston is one of only 5 UK airports to have a BIP (EU Border Inspection Post) facility. Trade has moved and is still moving to Europe as a consequence of the shutdown.*
- The overall limits of air freight capacity and restricted handling services in the South East continue to increase, and for the perishable air freight business, other airports are struggling to match the quality and speed of service for which Manston was renowned.*
- Manston's location to major roads and ports meant that the development of more trade was a distinct possibility and its unique air freight handling service makes it very desirable to the cargo business. In addition Customs, Port Health, FERA and other agencies were all in place to facilitate the airport's operation.*

*In our dealings with Manston over the last decade or more we have been very satisfied and actively supportive by putting our cargo business there. It was with deep regret that Manston management took the decision to close the airport. It is noted that other interested airport operators have shown serious interest about taking on Manston as an airport, we strongly hope that a future for Manston can be found. "*

5.2.27 As with past operations at Manston Airport, the main target markets for imports will include Africa, particularly East Africa. East Africa has a population of some 125 million and, since the 1980s, has undergone considerable economic reforms to stimulate growth in the private sector. Agriculture is the leading sector and the area exports flowers, fruit, and vegetables. East Africa has eight international airports:

- Bujumbura International Airport (BJM) in Burundi
- Jomo Kenyatta International Airport (JKIA), Mombasa International Airport (MIA) and Eldoret International Airport in Kenya
- Dar es Salaam International Airport (DIA), Kilimanjaro International Airport (KIA) and Zanzibar International Airport (ZIA) in Tanzania
- Entebbe International Airport in Uganda

5.2.28 Discussions by one interviewee (Securitas) with the Algerian Embassy indicate the intention of the Country to export perishable items including fruit and vegetables to the UK. Whilst Algerian airlines are currently experiencing issues with air freight, these problems are expected to be resolved soon.

5.2.29 Fresh flowers also originate in South America with Colombia being the second largest flower exporter in the world after the Netherlands. Other South American countries exporting flowers include Ecuador, Chile and Peru. This area also exports berry and stone fruits as well as salmon, particularly from Chile, and asparagus from

Peru. Additionally, pineapples are imported from Ghana, with green beans and flowers originating in Kenya.

### Fish and live animals

5.2.30 By weight, fresh salmon is the top export from Heathrow. During Operation Stack, a considerable amount of Scottish salmon was transported through the Channel Tunnel, a situation that is not ideal for the quality and therefore the price that can be achieved for this fresh fish. According to a number of interviewees, Manston is expected to pick up a proportion of this air freight, particularly perishable goods such as fish and shellfish. One interviewee reported that, in the season, 14 pallets of fish are air freighted to Dubai per fortnight as well as twice-daily flights for spider crabs (Securitas).

There is a considerable market in live animal transportation by air, particularly for racehorses and breeding stock. According to an interviewee, around 260 Arab racehorses flights take place between Dubai and the UK per year (Securitas). One of the interviewees reported problems flying pet animals into Heathrow, as they tend to cause delays to operations (Securitas).

### Other imports and exports

5.2.31 In the UK, imports exceed exports (in June 2016 the difference was £48,928 million compared with £43,844 respectively<sup>14</sup>). However, the research undertaken to compile the demand forecast for Manston identified a considerable export market for airlines that operate in developing markets. For example, Kent has a substantial biotech sector, with a hub located at Discovery Park in Sandwich, very close to Manston Airport. One interviewee mentioned the advantage for the pharmaceutical and biotechnology companies in East Kent using a local airport (Locate in Kent). Another interviewee talked about transporting medicines for clinical trials (DHL). As such, particularly in the early years, exports are expected to exceed imports, facilitating the opportunities for UK businesses (see Section entitled 'Onshoring of manufacturing in the UK' at paragraph 6.3.9 onwards for more details).

5.2.32 Exports from the UK are increasing and reached an all time high of £44,902 million in April 2016<sup>15</sup>. The top five export commodities from London's Heathrow include precious metals (£26 billion), aircraft turbojets (£3.3 billion), jewellery (£3 billion), pharmaceuticals and medicines (£2.8 billion), and art (£2.4 billion)<sup>16</sup>. By weight, next to fresh salmon, the top exports from Heathrow are books and other printed material. The continued growth of the British fashion industry is also a notable export market for the UK. One interviewee mentioned that increasing volumes of high-end fashion items are being air freighted by companies such as Jimmy Choo (DHL).

5.2.33 Several interviewees discussed the large Russian market, which comprises over 140 million consumers with an emerging middle class with a taste for luxury goods. Russia has huge infrastructure needs and exports from the EU to Russia include machinery and transport equipment, chemicals, medicines and agricultural products. The UK exports more products to Russia than it imports and the majority of imports include non-air freightable items such as oil and gas.

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<sup>14</sup> <http://www.tradingeconomics.com/united-kingdom/exports>

<sup>15</sup> <http://www.tradingeconomics.com/united-kingdom/exports>

<sup>16</sup> <http://www.lloydsloadinglist.com/freight-directory/news/UK-exports-via-Heathrow-rise-9.7/64745.htm#.V7nmwWXmugQ>

5.2.34 One of the freight airlines interviewed (Coyne Airways) said they carried mostly oil and gas extraction equipment and commercial consumer goods including clothing and electronics. They carry almost entirely exports from the UK and fly to places where demand for passenger flights is low including Baku in Azerbaijan, Iraq, Georgia, etc. Iraq is likely to be the next big market but rates to the Country are already quite low (Coyne Airways). Africa is also the continent to consider as the opportunities are limitless – *“people will start ordering mobile phones and electronics”* (Coyne Airways).

5.2.35 The Middle East is a growing market to and from Europe and imports include live animals, particularly race horses, breeding stock, and luxury cars during the summer months. Exports include a variety of products including high value cargo such as electronics and machine parts as well as fresh fish and seafood.

5.2.36 The Indian subcontinent is also a potential exporter and importer of goods to the UK. One interviewee mentioned the potential for airlines from Pakistan to use Manston (Securitas). Pakistan mainly exports clothing and imports consumer goods.

5.2.37 Trade with the US is mature and includes electronics and machine parts including spares for aircraft and oilrigs and Manston is in an ideal location to act as a hub between the USA and the rest of Europe, Russia, Africa and the Middle East. One of the interviewees, a shipper (ACC), said that the US is their strongest market with main hubs in Atlanta, New York, Chicago and Houston. Their air freight includes commercial and hazardous goods. Shipping problems for ACC include delays at Customs and getting goods out of the airport, usually Heathrow or Manchester, which can take many hours and is a situation that is worsening over the years.

5.2.38 Aircraft parts are frequently carried by air (Active Transport). Formula One cars (DHL) are also shipped by air, as are luxury cars from Arab countries. August is known as Supercar Season with around 300 vehicles per year being flown into London, (Securitas). The press report that fleets of gold covered vehicles including Bentley, Rolls Royce and Lamborghinis frequent the streets of West London. This niche market could potentially be attracted to Manston Airport.

5.2.39 Other types of air freight mentioned included specialist one-off and rather unpredictable opportunities such as transporting the equipment for bands playing at concerts all over the world. Indeed, the Rolling Stones used Manston on a number of occasions. Outsized items (i.e. more than 1.6 metres high) will not generally fit into the belly of a passenger aircraft so air freighters are used to fly these goods.

5.2.40 One interviewee mentioned specialist freight carriers such as Harrods Aviation, which has fixed based operations (FBOs) at Luton and Stansted with an engine shop at Farnborough.

5.2.41 Since most intra European passenger flights use narrow-bodied aircraft that cannot hold much freight, a market has sprung up for freighters flying around Europe (Coyne Airways). Indeed, wide-bodied freighters fly a few routes around Europe every night (Coyne Airways). At present, most of the UK freight is trucked to Amsterdam, Frankfurt or Milan to join these intra European flights (Coyne Airways).

#### **Integrator services**

5.2.42 Increasingly, success in business depends on getting the right goods to the right place at the right time and without holding expensive stocks of either inbound parts and materials or stock ready for distribution but as yet unsold. The use of Just-in-Time (JIT)

and Build-to-Order (BTO) approaches aim to eliminate both inbound and outbound inventories. However, these means of controlling inventory places increasing reliance on rapidly response and reliable transportation from suppliers, distributors and customers around the world. Indeed, around 10% of manufacturers' costs are associated with organising the supply of incoming parts and materials and the distribution of outgoing products<sup>17</sup>. Parcel delivery is therefore a hotly contested business with UPS, FedEx, DHL and TNT vying for position as market leaders.

5.2.43 One interviewee noted how e-commerce has greatly helped SMEs (small and medium sized enterprises), driving the trend for their increasing use of the services of integrators (FedEx). Whilst most integrator business has been business-to-business, the business-to-consumer market, probably linked to the growth in e-commerce, is growing and integrators are trying to adapt (Fedex). It would seem that the industry generally is migrating to express cargo with increasing demand for rapid delivery of freight (DHL). One interviewee talked about the high operational costs of 'last mile' delivery, which are key to ensuring profitability for the company (FedEx).

5.2.44 Integrators monopolise the freight-friendly airports such as East Midlands (DHL) and are reluctant to change their operations, preferring to cope with slot restrictions at Heathrow rather than moving to other more cost effective airports (DHL, FedEx). The explanation for this is the focus on associated fixed costs and the resources involved to make a move to another airport (FedEx). This reluctance has perhaps been exacerbated because the large integrators do not tend to get bumped from belly-hold on passenger flights and are given preference over smaller organisations (DHL).

5.2.45 The benefits integrators (FedEx) look for from an airport include:

- Excellent transport links by road and rail with connections to London and the rest of the UK
- A location close to London, particularly to the east of London and the Canary Wharf commercial and business districts and with the ability to access the whole of London quickly so companies can compete globally
- Sufficient runway length for larger cargo-only aircraft with available slots
- Situated at the centre of a key UK regional economy

5.2.46 The big issue for integrators at Heathrow is the lack of storage and land availability generally (DHL). Many leases come up for renewal in 2019 (DHL). Slot availability is also a problem and one interviewee mentioned that Chinese freight airlines would like to fly direct to the south east of the UK but cannot get slots (DHL). Security is a big issue for freight integrators and shippers and one of the interviewees said his company was so concerned that they had written to both the French and UK governments on the subject (FedEx). This interviewee also mentioned inconsistencies across Europe, which leads to administrative burdens for the integrators.

5.2.47 One of the integrators (FedEx) discussed the growth markets around the world. His analysis was that:

- India is not growing at the moment. The big difficulty is infrastructure on the ground and that many people are without an address.
- Africa could be a growing market if the infrastructure problems could be resolved. As with India, many consumers do not have an address. For both India

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<sup>17</sup> <http://www.economist.com/node/1477544>



and Africa, 'last mile' delivery is expensive as there are few domestic players in the market and the countries are plagued by road accidents.

- The Middle East, Far East, and the US are growing markets
- China and Europe have reached saturation
- Russia and the Balkans are big importers of luxury goods although changes to regulations can impact this market (such as restrictions on imports per person per month, which the carrier has a responsibility to report)

### Military and humanitarian operations

5.2.48 Outbound flights from Manston are likely to include military movements and humanitarian operations. With the absence of any information to the contrary, it is reasonable to predict both military and humanitarian operations will be similar in terms of numbers to those previously handled at Manston Airport. According to previous Air Traffic Controllers, these numbers are in the region of 30 movements per year for military operations and 20 per year for humanitarian and medevac flights. One interviewee also talked about the need for slots for deportation flights (Securitas).

### Comparison to Frankfurt Main Airport

5.2.49 An analysis of freight movements at Frankfurt Main Airport (FRA) provides an interesting example of a successful European freight operation. Frankfurt has restricted operating hours, which do not permit night flights. All services, including night airmail, now operate between 0500 and 2300. The airport handled more than two million tonnes of cargo in 2015, a reduction from 2010, due mainly to night-time restrictions, of around 193,000 tonnes, some 8%. Whilst there was no doubt a downturn in tonnes handled, these figures contradict the generally held assumption that successful cargo operations need to operate with 24-hour licenses.

5.2.50 In contrast to the operation at Leipzig, Frankfurt has little integrator traffic with the exception of FedEx movements. Leipzig Airport is only able to function as an almost 100% integrator operation because it does not have a curfew. Leipzig handles around one million tonnes of freight per year, a huge increase from 101,000 tonnes in 2007<sup>18</sup> when DHL moved its European hub to the airport.

5.2.51 The Frankfurt and Leipzig figures show the difference between a true market, where capacity is available to attract any number of freighter flights, and a constrained market such as that in London. This example underpins the findings outlined in previous sections, providing support for the rationale behind the forecasting method chosen. Projections based on the constrained London markets do not provide an accurate picture of the potential in the South East. The unconstrained operations at Leipzig and Frankfurt provide a much more accurate estimation of the feasibility of Manston Airport. Another point of interest from the data from Frankfurt Main is the limited types of freight aircraft that use the airport.

5.2.52 The Frankfurt Main data shows that cargo-only airlines seem content to operate during the day, if suitable slots are available and off load and turnaround times are expedient. Frankfurt handles a large number of freighters. Examples of those arriving and departing the airport on the 9<sup>th</sup> and 10<sup>th</sup> October 2016 are shown in Table 5. For Manston, focusing on the freighter market, and providing slots without the need to preference large numbers of passenger flights, can be key to a successful UK operation.

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<sup>18</sup> <https://www.leipzig-halle-airport.de/en/company/about-us/facts-and-figures/traffic-statistics-158.html>

*Table 5 Frankfurt freighter schedule*

<b>Airline</b>		<b>Example origin-destination</b>
<b>Aerologic</b>	Worldwide	Bangkok, Chicago, Delhi, East Midlands, Hong Kong, Leipzig, Los Angeles, Mumbai, Taschkent
<b>Air Algerie</b>	North Africa	Algiers
<b>Air Bridge Cargo</b>	Europe	Helsinki, Leipzig, Moscow (multiple times per day)
<b>Air China</b>	Far East/US	Beijing, Chicago, Shanghai
<b>Asiana Airlines</b>	Far East	Seoul
<b>Cargo Logic Air</b>	Eurasia	Moscow
<b>Cathay Pacific</b>	Far East	Hong Kong
<b>China Airlines</b>	Far East	Taipei
<b>China Southern</b>	Far East	Guangzhou and Shanghai (multiple times per day)
<b>European Air Transport (EAT)</b>	Europe	East Midlands, Heathrow, Leipzig
<b>Egypt Air</b>	North Africa	Cairo
<b>Emirates</b>	Worldwide	Amsterdam, Atlanta, Dubai (multiple times per day), Mexico City
<b>Etihad</b>	Middle East	Abu Dhabi
<b>Fedex</b>	Worldwide	Cologne, Memphis, Milan, Paris
<b>Korean Airlines</b>	Eurasia, Far East	Navoi (Uzb.), Seoul
<b>LAN Cargo</b>	US	Miami
<b>Lufthansa Cargo</b>	Worldwide	Almaty (Kaz.), Atlanta, Bangalore, Cairo, Chicago, Curitiba (Brazil), Dakar, Guangzhou, Hong Kong, Istanbul, Johannesburg, Mexico City, Miami, Moscow, Mumbai, Nairobi, New York, Riyadh, Sao Paulo, Shanghai, Tokyo
<b>MNG Airlines</b>	Eurasia	Tekirdag (Turkey)
<b>Night Express</b>	Europe	Birmingham
<b>Qatar Airways</b>	Middle East	Doha
<b>Saudia</b>	Middle East	Dammam, Riyadh
<b>Turkish Airlines</b>	Eurasia	Istanbul
<b>United Airlines</b>	Europe	Frankfurt Hahn
<b>Uzbekistan Airways</b>	Eurasia	Navoi (Uzb)

Source: Fraport website <http://www.frankfurt-airport.com/en/b2b/cargo-hub.overview.flights.html#flightschedules/type=departure/page=1/time=2016-10-19T17%3A00%3A00>

5.2.53 With Manston envisioned as primarily an air freighter hub, the Frankfurt Main data leads to two powerful implications. The first is that dedicated cargo carriers do not require night movements. Frankfurt averages over 60 movements per day of dedicated cargo carriers with a full night time restriction between 23:00 and 05:00. With its dedicated runway for cargo and the ability to service its customers quickly, cargo carriers are clearly able and willing to carry out their business within an 18-hour daily window. The second implication is that the high level of activity at Frankfurt can only mean that a significant amount of cargo landing at Frankfurt is destined for locations other than Germany. With London being a major economy and with scant landing slots

available for cargo, a portion of Frankfurt cargo is likely being transported from Frankfurt to London by truck. Manston could readily handle this business in a more cost effective and timely manner, with less environmental impact than trucking from Frankfurt to the UK.

### 5.3 Channel Crossings market share

5.3.1 One interviewee (Equinus) provided historic data that details the passenger, tourist vehicle, coach, and HGV traffic using the Port of Dover and Eurotunnel between 1995 and 2014. This data is shown in Table 6 and Table 7 providing the number of movements and a percentage change, year-on-year. Colour coding is used to show where movements have increased (green cells) or decreased (red cells), and indicate the peak years for traffic volumes. Table 6 shows an increase in HGV traffic to almost 2.6 million movements per year in 2016. This represents an increase in HGV movements over the past five years of some 33%.

*Table 6 Port of Dover historic traffic figures*

Year	Passengers		Tourist Cars		Coaches		HGV	
	Value	% Change	Value	% Change	Value	% Change	Value	% Change
1995	17,872,712		2,893,835		158,167		1,075,965	
1996	18,979,719	6%	3,054,781	6%	153,642	-3%	1,071,602	0%
1997	<b>21,463,570</b>	<b>13%</b>	<b>3,558,355</b>	<b>16%</b>	<b>165,002</b>	<b>7%</b>	1,602,863	50%
1998	19,441,608	-9%	3,300,283	-7%	153,700	-7%	1,522,948	-5%
1999	18,276,988	-6%	3,003,364	-9%	156,725	2%	1,667,942	10%
2000	16,232,191	-11%	2,594,824	-14%	148,285	-5%	1,618,184	-3%
2001	16,002,464	-1%	2,554,931	-2%	136,702	-8%	1,771,826	9%
2002	16,442,680	3%	2,632,182	3%	147,549	8%	1,854,234	5%
2003	14,681,003	-11%	2,581,573	-2%	125,224	-15%	1,782,857	-4%
2004	14,333,663	-2%	2,506,667	-3%	128,464	3%	1,980,662	11%
2005	13,348,829	-7%	2,554,772	2%	107,541	-16%	2,045,867	3%
2006	13,797,874	3%	2,647,060	4%	105,774	-2%	2,324,598	14%
2007	14,287,318	4%	2,837,559	7%	105,336	0%	2,363,583	2%
2008	13,893,118	-3%	2,830,238	0%	97,851	-7%	2,307,821	-2%
2009	13,090,309	-6%	2,775,174	-2%	81,209	-17%	2,300,468	0%
2010	13,154,638	0%	2,818,380	2%	86,035	6%	2,091,516	-9%
2011	12,764,699	-3%	2,653,127	-6%	84,938	-1%	2,069,945	-1%
2012	11,921,671	-7%	2,400,471	-10%	84,246	-1%	1,952,138	-6%
2013	12,753,343	7%	2,471,193	3%	90,478	7%	2,206,728	13%
2014	13,295,492	4%	2,456,817	-1%	96,576	7%	2,421,537	10%
2015	13,008,400	-2%	2,335,531	-5%	96,592	0%	2,539,918	5%
2016	12,059,538	-7%	2,179,331	-7%	87,023	-10%	<b>2,591,286</b>	<b>2%</b>
Last 10 Years		-16%		-23%		-17%		10%
Last 5 Years		1%		-9%		3%		33%

Source: Compiled from Port of Dover reports

5.3.2 The Eurotunnel figures shown in Table 7 highlight the transfer of passengers and tourist cars from the sea crossings. However, Eurotunnel also shows huge growth in HGV movements of around 32% in the five years to 2014. Total HGV movements Channel crossings from Dover and using Eurotunnel are more than 4 million per year.

**Table 7 Eurotunnel historic traffic figures**

Year	Passengers		Tourist Cars		Coaches		HGV	
	Value	%	Value	%	Value	%	Value	%
1995	4,081,000				1,246,000		391,000	
1996	7,909,000	94%			2,136,000		519,000	33%
1997	8,653,000	9%			2,383,000		268,000	-48%
1998	<b>12,901,000</b>	<b>49%</b>			3,448,000		705,000	163%
1999	11,898,000	-8%			3,342,000		839,000	19%
2000	11,198,000	-6%			2,865,000		1,133,000	35%
2001	10,717,000	-4%			2,605,000		1,198,000	6%
2002	10,043,000	-6%	2,335,625		71,911		1,231,100	3%
2003	9,857,205	-2%	2,278,999	-2%	71,942	0%	1,284,822	4%
2004	9,266,325	-6%	2,101,323	-8%	63,467	-12%	1,281,207	0%
2005	9,550,503	3%	2,047,166	-3%	<b>77,267</b>	<b>22%</b>	1,308,786	2%
2006	9,109,663	-5%	2,021,543	-1%	67,202	-13%	1,296,269	-1%
2007	9,411,020	3%	2,141,573	6%	65,331	-3%	1,414,709	9%
2008	8,624,629	-8%	1,907,484	-11%	55,751	-15%	1,254,282	-11%
2009	7,770,767	-10%	1,916,647	0%	54,547	-2%	769,261	-39%
2010	8,774,442	13%	2,125,259	11%	56,507	4%	1,089,051	42%
2011	9,313,236	6%	2,262,811	6%	56,095	-1%	1,263,327	16%
2012	10,039,351	8%	2,424,342	7%	58,966	5%	1,464,880	16%
2013	9,818,309	-2%	2,481,167	2%	64,907	10%	1,362,849	-7%
2014	10,600,000	8%	<b>2,572,263</b>	<b>4%</b>	63,059	-3%	1,440,214	6%
2015			2,556,585	-1%	58,387	-7%	<b>1,483,741</b>	<b>3%</b>
Last 10 Years		11%		26%		-13%		14%
Last 5 Years		21%		13%		4%		17%

Source: Bob Parsons. Eurotunnel car, coach and HGV statistics compiled from annual results report with additional material provided by the University of Reading to 2000. Eurotunnel do not report shuttle passengers and these figures have been compiled using ONS statistics and deducting Eurostar figures. NB – figures for 2016 not released at time of compilation

5.3.3 With the UK's exit from the EU, more stringent border control procedures can be expected. The Eurotunnel and Dover figures highlight the potential impact of delays and increased transit times on the more than four million annual HGV movements across the Channel. The figures shown above are consistent with the accounts of other interviewees that attest to freight being trucked to airports in northern Europe. Given increased friction at the border crossings, this market is more likely to consider moving to airfreight.

## 5.4 Passenger-focused findings

5.4.1 This section outlines the main findings related to passenger flights. There are currently estimated to be just in excess of 1.5 million people living in Kent<sup>19</sup>. In 2008, 11,000 local residents completed a survey run by Kent International Airport and KOS Media<sup>20</sup>. 86% of respondents said they were very likely to use scheduled commercial passenger flights from Manston. A further 11% said they were somewhat likely to use flights from the airport. Time saving and locational benefits were given by the majority of respondents as their reasons for wanting to use Manston.

5.4.2 It seems that Manston Airport, with its easy access to both the passenger terminal and from the terminal to the aircraft, may be a huge attraction to older travellers. The Association of British Travel Agents (ABTA) recently found that elderly people are missing flights because of the long walk they face at airports. If assistance is not pre-booked, these less able people are required to walk up to a mile between the check-in desk and the departure gate<sup>21</sup>.

5.4.3 In terms of time taken for travel and check-in, research shows that many people should find it quicker to access Manston Airport than either Gatwick or Heathrow. Indeed, the opening of the Lower Thames Crossing widens Manston's catchment area to include Essex and North London. The drive and rail times from the main towns in Kent to Manston Airport are shown in Figure 14 and Figure 15.

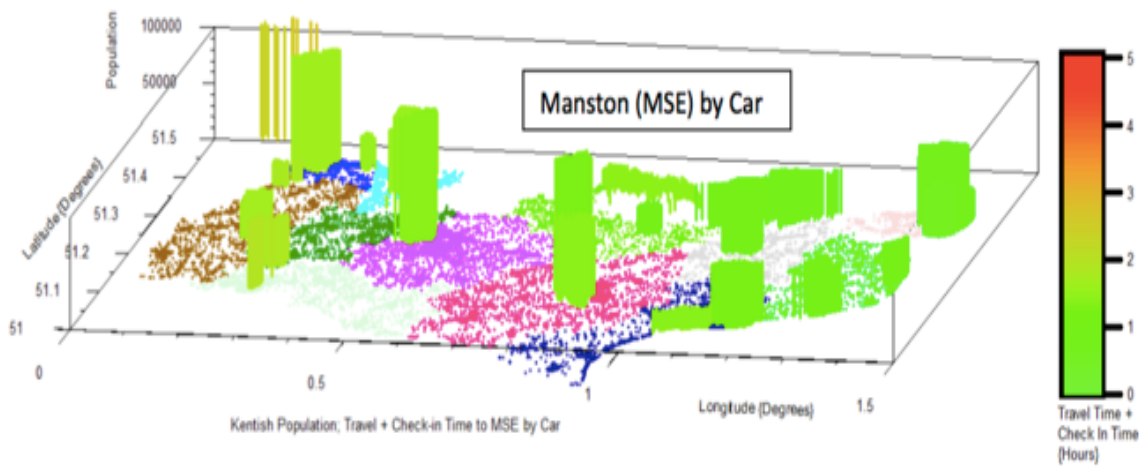
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<sup>19</sup> <http://www.kent.gov.uk/about-the-council/information-and-data/Facts-and-figures-about-Kent/population-and-census>

<sup>20</sup> <http://www.uk-airport-news.info/kent-airport-news-310708.htm>

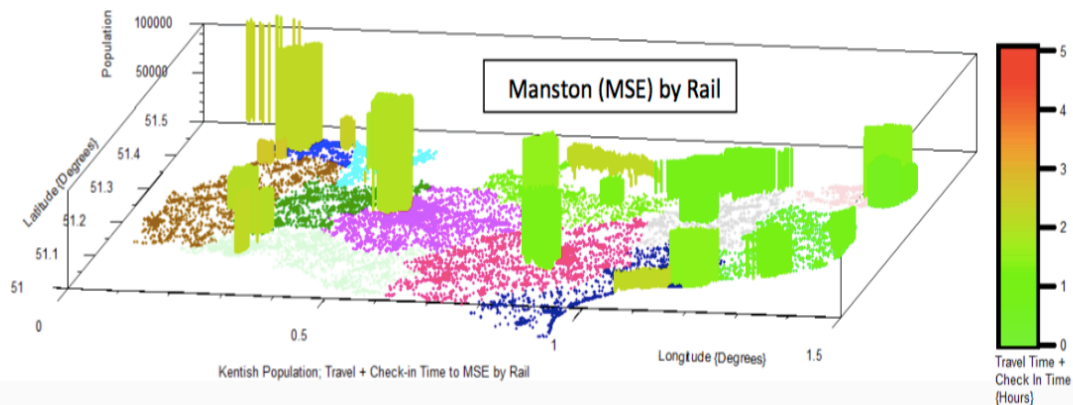
<sup>21</sup> Daily Telegraph, 27 September 2016, "*Older travellers miss flights due to airport walks of almost a mile*"

Figure 14 Drive times to Manston Airport



Source: Lab-Tools Ltd.

Figure 15 Rail travel times to Manston Airport



Source: Lab-Tools Ltd.

5.4.4 These figures were compiled from population-postcode data for the 12 Kent districts derived from the 2011 census. Travel times for both road and rail were measured at the middle of the day<sup>22</sup> and include all aspects of the journey to the queue for the check-in or bag-drop desk. The times assume a 30-minute check-in at Manston, two hours at Gatwick for European flights and three hours at Heathrow for long haul. Even with shorter check-in times at Gatwick and Heathrow for passengers who use online services, travel times remain competitive.

<sup>22</sup><http://www.lab-tools.com/SMA/Manton%20Airport%20Kent%20has%20major%20travel%20advantages%20-%20v2b.pdf>

5.4.5 Manston's location means that flights to and from 'sunshine' destinations such as Alicante and Malaga have a reduced flying time compared to other UK airports. For airports in the north of England and Scotland, this can be as much as one hour less in the air for each sector. Less flying time means less fuel and crew time, reducing the cost of each flight for the operator and allowing more rotations per day.

#### KLM

5.4.6 Between 2013 and 2014, KLM operated twice daily flights (four movements per day) between Manston and Schiphol in Holland. This operation connected passengers from East Kent and from the wider Kent and South East area. In 2013, KLM handled over 40,000 passengers. Tourism in both directions (inbound and outbound) was "just getting going and had a huge amount of support from all the tourism agencies" (Visit Kent).

5.4.7 Unfortunately, the company was forced to pull out of the airport before the more lucrative summer season. As such, it is difficult to estimate what passenger numbers would have been if KLM had been able to continue operating from Manston. Emails from between the Managing Director of KLM Cityhopper, Boet Kreiken and one of Manston Airport's former Air Traffic Controllers, Andy Wilby, show how KLM felt about their operation from Manston Airport:

*"Every time we hear about Manston we feel the lost opportunity for the UK, the Kent region, local employment and our lost venture which did not get the time to materialise with a full summer season. . . . The UK has to come to grips soon with her policy for regional airports and these airports (and e.g. amongst others our Klc operations) and airline connections are a vital lifeline for a modern economy and society as yours is. . . . we are convinced that definitively destructing such a runway and location as Manston is in the long run not such a wise decision as understatement in the greater and continuously expanding London area as well as of a relatively booming South East England. Many regional airports now vie for our connections to Europe and the world."*

5.4.8 Given the current capacity issues at other South East airports, RiverOak have a reasonable expectation that a carrier such as KLM will operate a twice-daily schedule from Manston. Indeed, KLM have reiterated their desire to recommence operations from Manston. Their schedule is likely to resume as before, with a twice-daily service from Manston to Schipol Airport, Amsterdam. KLM previously used Fokker 70 aircraft, which have a capacity of 80 passengers. Four movements per day, seven days per week equates to around 1,460 movements per year. This type of service provides local people with access to a major hub from where they can fly to destinations around the world.

#### Low cost carriers

5.4.9 In addition to the KLM flights, RiverOak expect at least one low cost carrier to operate from Manston, basing two aircraft at the airport. Indeed, in 2005, when EUJet, a low cost carrier, was operating from the airport, Manston handled around 207,000 passengers. A new theme park is planned for construction in Kent on the Swanscombe peninsular between Dartford and Gravesend. The proposed 872-acre Paramount entertainment complex includes a large indoor water park, theatres, live music venues, cinemas, rides, restaurants, and 5,000 hotel rooms. The park is expecting 50,000 visitors per day. Visit Kent, the County's tourism organisation, believes Manston would provide a gateway for visitors to the theme park. Accessing Kent from the east would encourage visitors to see more of the County rather than venturing no further than London. It is

expected that this attraction will help drive demand for the services of KLM and low cost carriers.

5.4.10 Ryanair have given RiverOak an indication that they will base two aircraft at Manston in the first three years of operation. These aircraft would be likely to operate a timetable serving 12 to 14 destinations throughout the year, including domestic and leisure routes, offering five rotations in the summer months and four in winter. From the fourth year of operation, Ryanair would consider basing three aircraft at the airport.

5.4.11 With the arrival of EasyJet, Southend Airport has developed a successful passenger operation, increasing from around 4,000 passengers per year prior to 2012 to 900,000 in 2015. However, the 2015 figure is 18% down on 2014 traffic. The short runway and restricted land available for development may mean that some airlines could look to Manston to expand their operations. In particular, should EasyJet, who operates to 16 destinations from Southend, around 10,000 movements per year, consider entering the long haul market, Manston would make an ideal choice, given its location. However, this service has yet to be announced and so no low cost carrier long haul flights can be included in the demand forecast for Manston Airport.

#### Resident passenger carriers

5.4.12 The CAA calculates that 1.9 million passengers are carried by marginal airlines at Heathrow (CAA, 2013, p. 22). Marginal airlines are defined as, “*those most likely to switch away from the airport in light of a 10 per cent price increase*” (*ibid*, p. 20). These airlines are shown in Table 8. Whilst the CAA describe these airlines as marginal, they note their analysis may be an overestimation since airlines may incur significant switching costs or they may consider their operations at Heathrow to be of strategic significance and would therefore be prepared to bear any increase in costs. This is particularly pertinent if the carrier is part of a strategic alliance or has an interlining agreement in place. For example, Vueling is an unaligned LCC airline, with only 5% connecting passengers. However, it has signed an interlining agreement with BA whereby passengers landing in Barcelona with BA will be able to connect directly to Vueling’s 74 destinations offered from its hub in Barcelona’s El Prat Airport<sup>23</sup>.

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<sup>23</sup> <http://www.vueling.com/en/we-are-vueling/press-room/press-releases/corporate/vueling-flights-from-el-prat-barcelona-to-connect-with-british-airways-broad-network>



*Table 8 Marginal airlines at Heathrow Airport*

Airline	Surface passengers	Connecting passengers	Total passengers	% connecting passengers	Unaligned
Biman Bangladesh Airlines	73,920	8,101	82,021	9.9	X
Air France	608,646	66,361	675,007	9.8	
Arik Air	109,537	11,723	121,260	9.7	X
Turkish Airlines	509,287	49,815	559,102	8.9	
KLM	701,117	66,320	767,437	8.6	
Etihad Airways	462,823	43,234	506,057	8.5	X
Aegean Airlines	381,479	33,993	415,472	8.2	
Delta	1,101,098	97,573	1,198,671	8.1	
Air Astana	17,438	1,491	18,929	7.9	X
Alitalia	773,475	58,643	832,118	7.0	
Contact Air	91,928	6,749	98,677	6.8	
Vueling	246,477	14,036	260,513	5.4	X
Royal Brunei Airlines	164,500	8,243	172,743	4.8	X
Air Botnia (Blue 1)	91,085	4,288	95,373	4.5	X
Air Seychelles	13,135	545	13,680	4.0	X
Aeroflot	237,340	7,788	245,128	3.2	
Tunis Air	43,523	1,267	44,790	2.8	X
Pakistan International Airlines	287,051	8,220	295,271	2.8	X
Uzbekistan Airways	22,743	501	23,244	2.2	X
All charters	53,800	747	54,547	1.4	X
Air China	144,653	-	144,653	0.0	
Azerbaijan Airlines	16,673	-	16,673	0.0	X
EVA Airways	188,837	-	188,837	0.0	X
Syrian Arab Airlines	14,757	-	14,757	0.0	X
Total (Italics)			1,908,695		

Source: CAA Passenger survey 2011

Note: EVA Airways to join Star Alliance in 2013.

Source: CAA, 2013, p. 21

5.4.13 However, the CAA says that:

*“24 out of 85 airlines at Heathrow (in 2011) carried less than 10 per cent connecting passengers on their services. For these airlines, it is unlikely that the loss of connecting passengers would be a significant switching cost. These airlines accounted for approximately 6.8 million (10 per cent) of the passengers at Heathrow. Of these, airlines accounting for approximately 1.9 million passengers do not belong to an alliance.”* (CAA, 2013, p. 35)

5.4.14 Since there is no indication that Heathrow will exercise its market power, no demand for the movement of any of these airlines to Manston has been made as part of the outcome of this research.

5.4.15 However, since capacity at Heathrow and Gatwick is constrained, with Luton and Stansted set to follow, RiverOak would expect to attract other carriers in the medium term. It is also expected that Manston will become the base for one or more regional

carriers with three 30 to 50-seater aircraft. These aircraft will serve six to eight business-orientated and niche leisure routes.

5.4.16 In October 2016, the UK and China signed an agreement that increases the current limit of 40 direct flights per week between the countries to 100 in both directions. The new agreement also lifts the restriction on the number of airports that were covered by the previous deal. Previously only six airports in each country could offer direct flights between the UK and China. This means that not only can flights take off and land from other UK airports but will provide direct access to destinations throughout China. One of the interviewees (Visit Kent) in particular felt the Chinese market into Kent is a particular opportunity. Indeed, this interviewee mentioned the announcement of two services into Gatwick and two into Birmingham from China with operators looking for additional slots. This, coupled with the government's strategy to move tourism to the regions, means, "there is lots of energy to spread the benefit of inbound tourism" with funding available (Visit Kent).

#### Charter flights

5.4.17 As well as daily scheduled flights and regular low cost carrier flights, Manston was previously served by a number of holiday companies including Newmarket Holidays and a Saturday service operated to Jersey. It is expected that Manston would attract at least one holiday company offering flights as part of a package during the season.

5.4.18 According to one interviewee, prior to its closure, the airport was approached by a Romanian airline that wanted to operate two flights per day during the season. The target market for these flights would be agricultural and other workers from Romania and Poland, many of whom come to work within 50 miles of Manston Airport. Therefore, due to the capacity available and constraints at other South East airports, demand at Manston is likely to include a number of charter passenger services, expected to operate at peak times across the year.

5.4.19 There are a number of infrastructure projects that, once complete, will reduce even further the travel times to Manston Airport and widen its catchment area (Visit Kent). These include the Lower Thames Crossing and improved rail travel times to a London terminus. Additionally, the construction of Paramount Studios and Ebbsfleet Garden City will provide additional passengers for Manston Airport.

5.4.20 An email of support for Manston Airport from the Manager of Passenger Sales at National Airlines based in Orlando, Florida dated 23<sup>rd</sup> January 2017 reads:

*"Just as a follow up to our conversation on the Manston Airport. Having used it as an alternative to LGW, LHR and STN when we did the State Farm incentive flying from 12 U.S Cities, I can say with experience, that our customers were absolutely blown away with the service offered by the Manston Airport staff, and were equally impressed with the ease of getting into downtown London. We even tested and timed coaches to and from LGW and STN to downtown and Manston always came out as a shorter total commute both coming and going.*

*National has looked at, and continues to evaluate niche scheduled service city pairs, and should Manston decide to reopen, it would probably enter into our overall evaluation as an alternative to the congested airports that presently serve the greater London area."*

5.4.21 As such, a forecast for charter flights has been included in the Manston demand for passenger flights.

#### Cruise passengers

5.4.22 In the past, Manston Airport has worked with The Port of Dover, bringing cruise passengers from the USA to join ships departing from Kent. Indeed, “*Renaissance Cruises were very successful with overwhelmingly positive passenger feedback*” (Visit Kent). The Port of Dover has huge expansion plans for cruise ships (Visit Kent) and “nowadays cruise passengers are looking for faster transit from the US” (Visit Kent). Indeed, on their website<sup>24</sup>, the Port say that:

*“Joint initiatives between airports and ports have become more important in recent years. The inter-operability and inter-connections between the two has led to an increase in visitor numbers to countries and regions, and can be a very attractive element in, for example, developing cruise services, linking air and sea in ways that cruise ship operators demand when looking to new services from certain countries and ports.”*

5.4.23 Manston Airport is located only 17 miles from the cruise terminal at Dover Harbour, the second busiest in the UK. In previous years, a well-received service operated between the US and Dover via Manston Airport. Passengers left the aircraft at Manston on bonded coaches, which allowed them to use the immigration services at Dover and portage, which reconciled them with their luggage when they reached their cabin on the cruise ship. This service saved passengers the time and inconvenience of travelling through a more distant London airport, and handling luggage between the airport and the coach transfer. Therefore, demand for one return flight per week during peak cruise times is predicted. These services are expected to originate in the US.

## 5.5 Other potential revenue streams

5.5.1 In addition to the air freight and passenger operations, interviewees mentioned a range of other potential revenue streams for Manston Airport. These include a maintenance, repair and overhaul facility (MRO), aircraft recycling, establishing an Enterprise Zone, re-establishing a flying school, and a business jet fixed base operation. Interviewees were also keen to mention Manston’s role in the resilience of the UK’s airport network.

#### Maintenance, Repair and Overhaul (MRO) facility

5.5.2 Aircraft maintenance, repair and overhaul (MRO) includes scheduled maintenance to aircraft and unscheduled maintenance due to damage, component and engine failure, mandatory modifications, and upgrades to the cabin interiors, systems or other components.

5.5.3 Several interviewees mentioned the importance of a maintenance base at Manston Airport and indeed it seemed almost taken-for-granted that the airport operator would ensure an MRO facility was available. Not only does an MRO encourage airlines to use an airport but also generates revenue for the operator and creates employment in the region. A study undertaken by the Department for Business, Innovation and Skills (BIS) in 2016 shows the impact of the MRO sector on the UK economy:

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<sup>24</sup> <http://www.doverport.co.uk/consultancy/airport-port-connectivity/>

*“The UK has a 17 percent global market share in aerospace industry revenues, which is the largest in Europe and second only to the US in worldwide terms. In terms of MROL we find that there are over 1,300 companies supporting the UK Maintenance, Repair, Overhaul and Logistics (MROL) sector. Together these companies have a turnover of around £15 billion, and they employ around 57,000 people in the UK.” (Department for Business, Innovation and Skills, 2016, p. 7)*

5.5.4 The report by BIS concludes that:

- *There is some consensus that the UK MROL sector is highly regarded throughout the world for: the quality of its work; its aerospace heritage; having a highly skilled, knowledgeable and flexible work force; and the presence of an effective regulator with good excellent regulatory compliance.*
- *The majority of the larger MROs endorse the need for on-going training through apprenticeship schemes*
- *In an international market place, the UK MROL sector is thought to have a particular strength in the provision of high value, sophisticated and advanced MROL services. Building on this capability, the UK MROL industry has the potential to make a significant contribution to the UK Government’s intention to double UK exports to £1 trillion by 2020.*

5.5.5 AvMan Engineering has been operating a facility from the Hangar One at the airport since 2009. The company focus on the maintenance of BAE 146/RJ aircraft, as well as the repair and maintenance of Honeywell ALF 502/LF 507 Series engines. The interviewee from AvMan mentioned advances in MRO practices including the use of drones for inspection of aircraft, currently being used by EasyJet.

#### **Aircraft recycling facility**

5.5.6 There are an estimated 12,000 aircraft due for retirement in the next two decades<sup>25</sup>. With a focus on environmentally sound practices, the aircraft recycling industry offers many opportunities for jobs creation and training opportunities. A key part of the RiverOak strategy and discussed by interviewees, movements are likely to be in the region of 10 per year. It should be noted that these are inbound-only movements.

5.5.7 One interviewee was particularly keen to return to Manston Airport as his company see huge potential from operating in Thanet (SmartLynx). When asked why they prefer Manston as a location, they report that the location, close to Heathrow and Gatwick but without slot restrictions, is the main reason. The company previously employed around 80 people onsite, most of who were from Thanet. He said that the location of Manston Airport for aircraft recycling is, *“absolutely ideal”*. The following is a letter of support from Thorir Kristinnsson of SmartLynx Airlines.

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<sup>25</sup> <https://afraassociation.org>

**To: The Managing Director, Manston Airport**

**From: Thorir Kristinsson, SmartLynx Airlines**

**Date: 28 November 2016**

*I am writing to support retaining Manston as an operational airport. I have over forty years' experience of working in aircraft engineering and my accreditation details are as follows:*

*Aircraft Technician Licence: ICAA, FAA A&P, Licence number: 3566*

*From 2001 to 2004 I was the Accountable Manager for Aviaservices Ltd and the five JAR 145 workshops owned and operated by the company in the Manston area. I was also the responsible manager for Air Atlanta Icelandic's stores depot and the line maintenance station at Manston in several buildings occupying a total of 70,000 sq.ft. Then from 2004 to 2006 I was Senior Director Maintenance at Air Atlanta Icelandic.*

*As far as I remember we had 70-80 permanent staff but I might be able to connect you with our former HR manager Mrs. Dianne Potter who would have this in much better details as she did an excellent job of pushing for training and hiring the locals with an apprentice program for the workshops.*

*Most of the work performed was related to a fleet of B747's B767's B757's and in the beginning L1011's aircraft which flew in to Manston for all kind of maintenance works, limited of course as in those days we never had access to a hangar. In busy seasons, usually between contracts of the aircraft, we employed with contractors and mechanics coming with the aircraft - often 100 + people. We maintained around 50 aircraft per year and also salvaged around 5 or 6 aircraft each year. We handled wheels and brakes, battery equipment, catering and cargo equipment, safety equipment, and avionics such as communication and lighting. Our company had CAA approval.*

*The operation was gradually scaled down because the people who bought the airport in 2005 never really understood the potential of the aircraft maintenance and re-cycling business and without a hangar we were facing all sorts of operational and environmental challenges. Looking back I see it as a lost opportunity because, for a time, the operation was successful and profitable, as well as offering employment opportunities to local people.*

*In recent weeks I have had conversations with colleagues with many years' experience in aircraft engineering and re-cycling and I can say that there is a real interest in setting up a new business when Manston re-opens.*

*It's also clear to anyone who understands the air freight business that Manston has huge potential as a cargo hub. It can free up slots in LHR and STN, it's close to the Channel Tunnel and it now has much better rail connections with London. Actually the location is absolutely ideal and I look forward to being able to use Manston Airport again soon."*

## **Enterprise Zone**

5.5.8 The Manston Airport site provides the opportunity to derive income from activities other than freight and passenger flights. For example, in the 2011 Budget, the Government announced the creation of a number of Enterprise Zones across England.

Enterprise Zones define a geographical area where fiscal incentives and simplified planning controls encourage businesses to flourish by reducing the barriers to growth. Enterprise Zones have been established to include or be based around a number of airports including Manchester, Luton, Newquay and Cardiff.

5.5.9 The Government's Draft Aviation Policy Framework (DfT, 2012, pp. 28-9) outlines the effect of Enterprise Zone Status on airports including transforming airports into international business destinations, creating jobs, and attracting investment to boost air connectivity and maximise economic impact. Should Manston Airport re-open, it may be possible to apply to the Government for Enterprise Zone status, providing incentives for businesses to locate to the area, bringing additional employment and economic benefits to Thanet.

#### **Flying School**

5.5.10 Manston was home to TG Aviation flying school for over 30 years. When Manston closed, the school moved to Lydd Airport. For many years prior to Manston's closure, TG Aviation operated a popular and highly regarded flying school founded by the late Ted Girdler. The company has since temporarily re-located to Lydd Airport and has expressed a strong desire to return to Manston when the airport re-opens for business.

5.5.11 TG Aviation's former premises comprise a hangar, offices, and a reception area. In discussions with the TG Directors, RiverOak have agreed that, with suitable investment in the buildings, the business should be re-opened but this time as a fixed base operation (FBO) for executive jets as well as a flying school.

#### **Business jet operation**

5.5.12 In addition to the planned FBO, Polar Helicopters operate a fleet of three helicopters, which is due to increase to four. Their core business is in training and helicopter charter and a helicopter connection to Battersea for a client landing at Manston in an executive jet would take around 35 minutes. The interviewee from Polar Helicopters reported that she would be very interested in working in tandem with an FBO operation on the site.

5.5.13 Polar have been at Manston for 10 years, and in Hangar 10 for seven years. Although a well-established business at Manston, Polar Helicopters have not found it easy to operate from a non-operational airport. Indeed, this interviewee expressed the opinion that very little investment was made to improve the cargo operation or any other aspect of Manston as an operational airport except for the equestrian centre.

#### **Diversion airport**

5.5.14 Several interviewees mentioned the importance of Manston to the resilience of the UK's airport network (AvMan, Baltic Exchange, Securitas). Manston had previously provided a diversion airport for aircraft either in difficulties or because of conditions (such as fog, snow or problems on the runway) at the original destination airport. According to one interviewee, Manston was the diversion airport for BA, KLM and Virgin Airways (AvMan). Since the closure of the airport, airlines have great difficulty providing an en-route diversion airport in their flight plan and this impacts on them commercially. In particular it was reported that BA has a problem on the A380 transatlantic routes.

## 6 Discussion

6.0.1 The aim of this section is to consider the findings from the research, as detailed in the previous section, and to discuss their influence on the likely demand for Manston Airport. The sections first consider the air freight findings, looking at the reasons why Manston will prove attractive to freight operators, before looking at the market opportunities and demand sectorally and geographically. The potential freight demand is then considered against a range of potential scenarios that may impact the sector. Next, the likely demand for passenger flights is discussed before summarising the discussion section.

### 6.1 Attracting air freight to Manston Airport

6.1.1 The findings have provided a rich variety of information about what might attract air freight to Manston Airport. These include both 'push' and 'pull' factors. 'Push' factors cover those that may lead customers away from other airports or change current transport models and include the issues at Heathrow and the Channel crossings, increasing problems with security, and potential changes to the current dominance of belly-freight in the UK. 'Pull' factors work to attract customers due to the offering made by the airport and include speed of turnaround achieved by Manston, cutting edge security clearing, and the location of the airport.

6.1.2 The analysis of Frankfurt Main Airport demonstrates how an unconstrained airport can attract considerable air freight movements. This airport handled more than two million tonnes of cargo in 2015 without operating at night. Contrary to the view that cargo-only airlines prefer to operate at night, Frankfurt shows that if suitable slots are available during the day and turnaround times are expedient, a daytime operation can be successful.

#### Issues at London Heathrow Airport

6.1.3 Many interviewees discussed the problems they face using Heathrow Airport. These problems include being bumped from belly-freight, sometimes up to four times before freight is transported. This causes uncertainty and considerable stress when the items are required urgently, such as parts for aircraft, oil rigs, or valuable machinery. Delays in delivery cause lost revenue for the parties involved. Indeed, delays are common at the airport, with trucks queuing to on- and off-load their cargo. These problems are likely to get worse once work on upgrading and realigning the M25 motorway to meet the demands of the new runway commences.

6.1.4 There seems to be a considerable problem with security screening oversized air freight in the UK. This results in the trucking goods to northern Europe for screening. Securitas, one of the larger organisations involved in security clearing air freight, estimates substantial numbers of truck loads per year are having to undertake this journey. For example, Swissport sends a minimum of 11 trucks daily from all over England and Scotland. This figure can rise as high as 40 in peak seasons, with an estimate of an average of 16 daily over a year, seven days a week from just one handler (Securitas). Together with the bottlenecks at Heathrow, these issues are having a substantial impact on the air freight market. Overcoming these problems provides Manston Airport with an opportunity to attract a considerable market, particularly perishable and time-sensitive items.

6.1.5 There seem to be very limited slots for freighters available at Heathrow. Many interviewees pressed this point, which is a considerable advantage for Manston until

capacity is increased at Heathrow. By the time the third runway becomes available, not likely to be before 2025, Manston is likely to be well established. It is also possible that demand for passenger traffic will be sufficient to fill the third runway at Heathrow, continuing to create a push effect for Manston.

6.1.6 The situation at Stansted seems set to continue to preference passenger traffic, particularly in the period before the third runway at Heathrow is open for business. This is a concern for organisations such as TfL, who are working to improve surface transit to Stansted for passengers.

#### Channel crossings and trucking

6.1.7 There are more than four million truck movements across the Channel every year. Haulage companies and freight airlines report severe delays, mainly associated with the situation in Calais, now largely resolved. These delays impact profitability and particularly affect the carriage of perishable items that lose their value the longer they remain in transit. Post Brexit, it may be that delays are inevitable as increased customs and immigration checks have to take place at border crossings. Many interviewees talked about the security issues they face when trucking through the Channel crossings.

6.1.8 Any increase in delays may precipitate a move away from trucking to the continent, particularly for high-value time-sensitive goods. Indeed, if trade restrictions are such that the UK has increasingly to look to markets outside the EU, trucking will not be an option. Air freight would then be in competition with shipping, a much slower albeit cheaper form of transit. Even without the impact of Brexit negotiations, York Aviation are forecasting a shortfall equivalent to 2.1 million tonnes of air freight capacity in the UK by 2050 (York Aviation, 2015, p. 19). TfL predict that the South East will be short of capacity for around 54,000 air freight movements (TfL, 2013). The implications for Manston therefore look very positive, with considerable demand potential for air freight movements.

#### Security issues

6.1.9 Security was a key issue for many interviewees with concerns that the problems currently being experienced will worsen in the future. The carriage of lithium batteries is becoming increasingly problematic, with moves to impose a ban on passenger aircraft. This would affect the ability to use belly-hold space and may have implication for Manston as a specialist freight airport.

6.1.10 Aside from the impact on security from threats of terrorism, other issues included problems with oversized cargo screening. Some airport's inability to screen oversized items can cause delays and frustration. If Manston were equipped to handle and screen these niche items that are often high-value and time-sensitive, the airport would be able to attract specialist freight carriers.

6.1.11 RiverOak are in negotiations with Securitas to operate a canine freight screening operation from the site. Securitas currently truck in the region of 50,000 HGV loads of air freight from UK airports to Rotterdam or a European airport equipped with screening for freight. Given the volume of air freight involved and the considerable advantages of using a UK airport with the specialist equipment required to security clear freight, Manston is likely attract a considerable amount of these movements.



### Changes to preference for belly-freight

6.1.12 Whilst the UK air freight market is currently dominated by belly-hold rather than dedicated freighters, this is the reverse of the situation in the rest of Europe. Several factors may contribute to a change to this dominant model. These include reduced capacity on aircraft such as the A380, the LCC model, which generally focuses on rapid turnarounds, which preclude the carriage of freight. In addition, many interviewees talked of freight being bumped from passenger aircraft and the negative impact this has on their business. If the market was to move away from belly-freight and towards the use of more dedicated freighters, Manston would be well placed to attract this growing market.

### Speed of turnaround

6.1.13 Speed of turnaround was mentioned as a key attraction for a freight airport. Manston has a history of rapid turnarounds, often cited as the best in the industry. There can be little doubt that the future operators of Manston would want to focus on providing this excellence of service, which, if well publicised, should attract those involved in time-sensitive markets.

6.1.14 Manston's location means that aircraft heading south make a saving in time and fuel. This saving is in the region of 45 minutes to one hour in terms of time and between \$2,000 and \$3,000 per flight. There are also savings to be made in crew time. These savings increase the benefits of using Manston and may act as a powerful marketing opportunity for the airport.

## 6.2 Market opportunities for Manston Airport

6.2.1 Many of the interviewees mentioned the markets they believe exist for Manston Airport. These include both sectoral and geographical markets.

### Sectoral markets

6.2.2 The niche market opportunities that interviewees identified for Manston include perishables such as fruit, vegetables and flowers, the traditional focus for the airport and fish and shellfish. Timely delivery of fresh produce is vital to supermarkets, which require the maximum shelf life to reduce wastage and increase profit margins. Imports are likely to originate particularly from Africa and South America. The export markets for fish and shellfish, including oysters, and spider crabs that are plentiful in the waters around the south of the UK, include Spain, France, and the Middle East.

6.2.3 It seems Manston would be well placed to dominate niche markets such as Formula One cars, luxury cars from the Middle East, live animals such as breeding stock and racehorses, oil and gas equipment, and oversized cargo. These markets should provide considerable business for the airport. Additionally, Manston Airport has a history of handling military and humanitarian operations and these can be expected to return to Manston when the airport is operational.

6.2.4 There seems to be strong interest in aircraft recycling market and, although this would provide only a limited number of movements per year, would provide Manston with many opportunities to increase revenue and to create jobs and increase skills in the region.

## Geographic markets

6.2.5 Interviewees identified a number of geographic markets they believe have growth potential. These include both import and export markets with a focus on the sectoral markets identified and described in the section entitled 'Sectoral markets' at paragraph 6.2.2 onwards above. These markets include:

- Africa particularly for the import of flowers, fruit and vegetables
- Algeria for the import of fruit and vegetables
- China for the import of consumer goods and export of luxury items
- Middle East particularly for export markets
- Pakistan including the export of clothing and the import of consumer goods
- Russia for gas and oil equipment and the export of luxury items
- US for a range of import and exports

## Attracting integrators and freight forwarders

6.2.6 Whilst integrators, like many businesses, are generally averse to change, there are a number of potential benefits that may make Manston Airport attractive to this market. In addition to the benefits described previously such as rapid turnaround of aircraft and the availability of slots at Manston, the airport offers other attractions. These include the availability of warehousing and office space either onsite or close to the airport. The connectivity of the airport is also excellent, with a number of interviewees talking about this benefit. The presence of an integrator at Manston would dramatically increase the number of freighter movements from the airport. This scenario is discussed further in the section entitled 'Integrator/forwarder base' at paragraph 6.3.21 onwards.

## 6.3 External environment scenarios

6.3.1 The external environment in which any airport operates is dynamic and change inevitable. These changes may affect the behaviour of potential users and therefore, in order to enhance the assessment of demand, a range of alternative scenarios has been considered. These scenarios detail key triggers that may impact the air freight industry and Manston's ability to attract air freight. Research from both secondary sources and from the interviews undertaken has been used to identify these triggers. Nine potential scenarios specific to the air freight market for Manston Airport have been identified. These scenarios are:

1. The UK's position in Europe
2. Changes to fuel prices
3. The availability of more efficient aircraft
4. Onshoring of manufacturing in the UK
5. Changes to logistics and transport systems in Kent
6. Dramatic changes to economic performance
7. Manston becomes a major integrator/forwarder base
8. Manston becomes an Amazon base
9. Manston becomes a hub for drone activity

6.3.2 The following sections discuss the potential impact of these scenarios on the demand for air freight at Manston Airport identified through the research undertaken for this report.

## The UK's position in Europe

6.3.3 The UK has made one of the most momentous decisions in its history – to exit the EU. It now seems that a swift exit from the EU is unlikely and that negotiations will take the maximum two years permitted to conclude. Until these negotiations are complete, it is difficult to predict the impact on air freight to and from the UK. The British Government has identified three potential options for relationships between the UK and the EU post Brexit. These are:

- Membership of the European Economic Area (EEA). This model is used by Norway and ensures full access to the Single Market. In terms of aviation, membership of the EEA would provide membership of the European Common Aviation Area (ECAA) and continued access to the Single Aviation Market.
- Bespoke bilateral arrangements, such as those between the EU and Switzerland. For aviation, a UK-EU comprehensive agreement would entail a bespoke arrangement such as the EU-US and EU-Canada agreements.
- A World Trade Organization (WTO) relationship, which would mean no special arrangement with the EU is negotiated. For aviation, whilst this would provide the UK with maximum policy freedom with only ICAO's Chicago Convention framework in place, it would exclude the UK from European initiatives such as the Single European Sky.

6.3.4 Table 9 highlights the characteristics of these various options. It is highly likely the airline industry will lobby the Government to retain the Single Aviation Market. Without the freedoms of the air currently in place, air freight operators are likely to experience added costs, more restrictions and increased bureaucracy.

**Table 9 Key characteristics of post-Brexit UK-EU models**

	Access to Single Aviation Market	Validity of EU horizontal agreements	Influence on EU policy	Policy freedom
Continued EU membership	Full access	Full validity	High	Very limited
ECAA membership	Full access	Would likely remain valid	Very limited	Limited
UK-EU comprehensive agreement	Access	May need to be renegotiated	None	Potentially limited
No formal agreement	Would need to be negotiated	Would need to be renegotiated	None	High

Source: IATA, 2016b, p. 6

6.3.5 A complete exit from the EU would force the UK to negotiate aviation and trade accords with many countries that have to date been covered by EU treaties. However, a “hard” Brexit solution for other policy areas may make a “soft” Brexit for aviation more difficult to negotiate. All commentators have in common the opinion that it is far too early to predict what the outcome of Brexit will be. In terms of Manston Airport and the demand for freight and passengers, no changes to the current findings are proposed until the result of negotiations is clearer. The current demand picture does not contain any intra-EU traffic, although, most cargo airlines do not fly point-to-point, picking up and dropping off on non-direct routes to their final destination. Without this ability, if no formal agreement is reached, freight forecasts may well have to be adjusted, not just for Manston but also for the whole UK and European airport network.

### Changes to fuel prices

6.3.6 Fuel costs are one of the largest expenses for the airline industry, around one third of operating costs. Oil prices have been relatively low since mid 2014 but have not necessarily helped air freight carriers because of the effect of hedging<sup>26</sup>. This effect should start to drop away and both freight and passenger carriers may tend to be more aggressive with their pricing. Lower fuel costs have allowed some operators to open up new routes, particularly long haul, that were previously unaffordable. However, since fuel is priced in US Dollars, the value of Sterling against the US Dollar is critical.

6.3.7 Since airlines use hedging to protect them from fuel price fluctuations, price hikes are unlikely in the short-term. Indeed, the general trend has been for prices to reduce over time and more efficient aircraft and operating practices seem set to ensure this trend continues. As such, an increase in the choice of air freight over other means of transportation may arise. However, given the uncertainty around the value of Sterling against the US Dollar, the demand identified for Manston has not been changed.

### Availability of more efficient aircraft

6.3.8 Aircraft continue to become more efficient, improving fuel consumption and reducing emissions through new engine, aerodynamic devices and aircraft design, and through lighter weight on-board equipment. The Boeing 787 Dreamliner and the forthcoming Airbus A350 are much more efficient than previous generation aircraft. Instead of metal, these aircraft are constructed almost entirely from composite materials, reducing their weight considerably. Whilst these economies should be passed on to the customer, reducing the cost of air freighting, no increases to the demand identified for Manston have been included over the period of the study.

### Onshoring of manufacturing in the UK

6.3.9 One of the effects of the referendum vote to leave the EU has been a weakening of Sterling. This makes British goods cheaper for overseas customers relative to foreign competitors. Since the end of the 1970s, the number of jobs in manufacturing has declined from 25% of the UK workforce to around 8%. Less than three million people now work in UK manufacturing compared with more than three times that number 40 years ago.

6.3.10 However, technological changes such as robotics are eroding the comparative advantage of low labour cost countries such as China. Aside from cost issues, many companies are concerned with the cost-quality balance of their production and the challenge of protecting intellectual property. Manufacturing overseas makes it easier for ideas to be stolen and products to be copied, crowding the market and diluting brand names.

6.3.11 Onshoring is therefore predicted to bring manufacturing back to the UK in industries such as vehicles, clothing, and high tech products. Agility is key to competitive advantage, with speed to market and more flexibility required from suppliers. Locating production so far from the market does not allow for agile responses. Whilst the UK looks set to return to some manufacturing, not the mass production of the past but as part of a more lean, efficient value chain.

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<sup>26</sup> Hedging is a risk-management strategy that is used to reduce possible loss incurred due to adverse price movements, in this case in fuel prices

6.3.12 Since Just-in-Time practices are likely to be required in these manufacturing processes, the use of air freight may well increase. However, the impact on the manufacturing sector from the UK's exit from the EU is uncertain and therefore it is too early to precisely predict the potential increase to the demand for Manston at this time. However, demand seems to show that exports will exceed imports and this is, in part, a reflection of this expected increase in the UK's manufacturing and exporting ability.

#### Changes to logistics and transport systems in Kent

6.3.13 Whilst it is too soon to predict the impact of the UK's withdrawal from the EU and its effect on Foreign Direct Investment (FDI), recent FDI figures for 2015 to 2016 show the UK had a record number of inward investment projects, created the second highest number of jobs ever, and is the top European destination for investment from emerging markets<sup>27</sup>. Given that property costs in Kent are around 60% cheaper than in London<sup>28</sup> and that Kent benefits from good transport links including the Channel Tunnel and the Port of Dover, the County makes a good location for logistics and transportation companies. Indeed, plans for a Lower Thames Crossing will make Kent even more accessible to the east of the Country.

6.3.14 The presence of a vibrant freight-focused airport is likely to stimulate demand for warehousing and office space in the East Kent area, creating a transport and logistics hub around the airport. Under the direction of RiverOak, Manston will play a key role in the supply chain at local, regional and national levels. This objective is in line with the vision IATA has for the air cargo industry. They say:

*"To address the competitive pressures facing air cargo, the industry challenged itself in 2014 to meet an important objective by 2020: seeking to optimize the air cargo supply chain for every commodity type transported by air to provide shippers with greater transparency, reliability and predictability. Such industry optimization will help to not just protect the value proposition of air cargo, but will enhance it.*

*One goal of supply chain optimization could be the reduction of the average end-to-end shipping time by 48 hours, where the customer so demands. To meet this goal, air cargo must modernize its processes, improving quality and reliability, and widen the range of services offered. Key factors of success are data integration, process integration and supply chain partnerships based on common and mutually beneficial scenarios." (IATA, 2015, p. 8)*

6.3.15 Figures are difficult to predict but in the medium- to long-term increased demand due to improvements to transportation and logistics in Kent should be taken into account in forecasting demand for Manston Airport.

6.3.16 Recent issues at Calais have highlighted the pressures on Kent's current infrastructure. Kent Channel crossings have suffered on-going delays over the past few years. These have centred on ferry worker strikes on the French side and the situation with migrants and refugees trying to enter the UK through the Channel Tunnel. These delays have had a huge impact on industry and local people. Operation Stack parks freight traffic on the M20, causing chaos on local roads as traffic attempts to use other ways to navigate the area.

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<sup>27</sup> <https://www.gov.uk/government/news/uk-remains-number-one-investment-destination-in-europe>

<sup>28</sup> Locate in Kent

6.3.17 Last year, the Fresh Produce Consortium estimated that, due to Operation Stack, £10m of fresh fruit and vegetables was thrown away during the first six months of 2015<sup>29</sup>. Eurotunnel has estimated their costs and lost revenue of the refugee crisis at Calais in 2015 at €29m (£23m), sending a bill for this amount to the British and French Governments<sup>30</sup>. Exact estimates of the impact on UK industry are hard to find but commentators generally talk of costs to the UK economy in millions of pounds.

6.3.18 These delays may well prompt shippers to switch to air freight, particularly if a local freight-focused airport was available. In terms of an increase to the demand for Manston, this may well represent an increase in the short to medium-term if capacity allowed. These movements would be in addition to the previously discussed (see section entitled 'Channel crossings and trucking' at paragraph 6.1.7 onwards) estimates for the FTA and TfL that show around 2.1 million tonnes of freight would be diverted from UK airports due to lack of capacity by 2050 (York Aviation, 2015, p. 19).

#### **Dramatic changes to economic performance**

6.3.19 One of the most important influences on air freight is economic performance at global, European and national levels. Whilst air traffic tends to fall faster than world trade at the start of an economic downturn and increase quicker on the up-cycle, it seems that each 1% increase in world economy gives rise to a 2% increase in air traffic activity (Morrell, 2011). Since air transportation usage and economic activity are interdependent, any dramatic change would impact both passengers and freight flights.

6.3.20 Regulatory frameworks, such as changes to taxation and environmental mitigation strategies, also affect air transportation. However, it is always difficult to predict changes to economic performance but the UK's situation is particularly uncertain following the decision to exit the EU. How the UK decides to conduct its future relationship with Europe will affect how much freedom the UK has to decide its own policies. For example, the ICAO Assembly has agreed to develop and apply a global market-based mechanism to address international aviation emissions by 2020. The EU's Emissions Trading Scheme (ETS) application and its impact are currently reduced and carbon prices are low. It is therefore expected that impact on flight demand will be relatively small in the short to medium-term<sup>31</sup>. No changes from this scenario to the demand identified for Manston are therefore proposed.

#### **Integrator/forwarder base**

6.3.21 An analysis of the origin-destination airport choice of freight operators shows that the presence of forwarding facilities at an airport is the primary deciding factor (Kupfer *et al*, 2016). Freight forwarders act as third party agents to arrange the carriage of goods often without owning or managing transportation assets. By contrast, integrators such as FedEx, DHL and TNT, arrange cargo movements like a forwarder but also own the transportation assets.

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<sup>29</sup> C. Johnston, The Guardian, 4<sup>th</sup> July 2015 available from <http://www.theguardian.com/world/2015/jul/04/migrants-try-to-storm-channel-tunnel-sparking-further-delays>

<sup>30</sup> <http://www.independent.co.uk/news/business/news/refugee-crisis-eurotunnel-sends-29m-claim-to-british-and-french-governments-to-cover-calais-costs-a6882801.html>

<sup>31</sup> <https://www.eurocontrol.int/sites/default/files/content/documents/official-documents/forecasts/seven-year-flights-service-units-forecast-2014-2020-feb2014.pdf>

6.3.22 Manston Airport and the Thanet area offer a range of opportunities for the development of warehousing and office space<sup>32</sup>. It therefore seems feasible that forwarders and particularly integrators, who would be able to base aircraft at the airport, may choose to locate to Manston. The demand for the airport could therefore include the presence of one integrator basing two aircraft at Manston from the second year of operation and four from the fourth year. If this scenario is correct, integrator movements would be likely to increase from year 10 of operation due to the pressure predicted to be on Stansted for passenger flights by this time.

6.3.23 However, if Manston became an integrator base for more than one airline or if one integrator based a larger number of aircraft at the airport, this would rapidly increase the number of movements at the airport. This, of course, would have to be in line with capacity available at the airport and acquisition and development permissions for nearby land. Subject to these arrangements, demand could potentially increase considerably from year five or six of operation.

#### Amazon base

6.3.24 Amazon, the online retailer, now has a fleet of some 40 freighters. The Air Transport Services Group began operating ten 767 freighters for Amazon around the middle of 2015, initially as a test network. It has now leased twenty aircraft to Amazon for a period of five to seven years. Atlas Air is also phasing in twenty 767-300s, which they will operate for Amazon. On the 4<sup>th</sup> August 2016, Amazon unveiled their first liveried freighter, a 767-300ER, which bears the Prime Air logo and is operated by Atlas. Most of the 40 767 freighters in the Amazon Prime Air fleet will operate on a hub-and-spoke basis from Ohio's Wilmington Airport. Given the support for Manston Airport Atlas Air has put on record (see email from Rob Buda, Senior Director at Atlas Air dated 7th March 2017 at 5.1.23, which says, *"I can certainly say with confidence that Atlas Air would consider recommending MSE to our customers as a viable regional option should the airport ever reopen for business."*).

6.3.25 Whilst there is still no news about Prime Air's operation in Europe, Amazon is tailoring its route network to meet the needs of the company and to improve delivery times for customers. The company states that it is creating an air transportation network, as evidenced by the \$1.4 billion investment in Cincinnati Airport, and it seems likely this will include Europe. Amazon began posting vacancies for roles with Prime Air based in Cambridge in mid 2016. Cambridge is the UK home of Amazon's drone development (see Section entitled 'Drone hub' at paragraph 6.3.26 onwards for further detail). Whilst Amazon has not taken part in this research, this scenario suggests consideration of Amazon basing for one aircraft from the second year of operation, increasing to two aircraft from year 4. If Amazon based more aircraft in the UK at Manston, the number of movements could increase considerably if capacity allowed.

#### Drone hub

6.3.26 Amazon Prime Air is the company's vision of its future delivery system, using small, unmanned aerial vehicles or drones to get packages to customers. The Amazon drones will carry packages up to five pounds in weight using "sense and avoid" technology to operate beyond the line of sight up to distances of around 10 miles. Amazon proposes the development of an air traffic system that allows drones to operate in civil airspace without interference with other aircraft. They have put forward a design, as shown in Figure 16, that segregates civil airspace below 500 feet. Airspace up

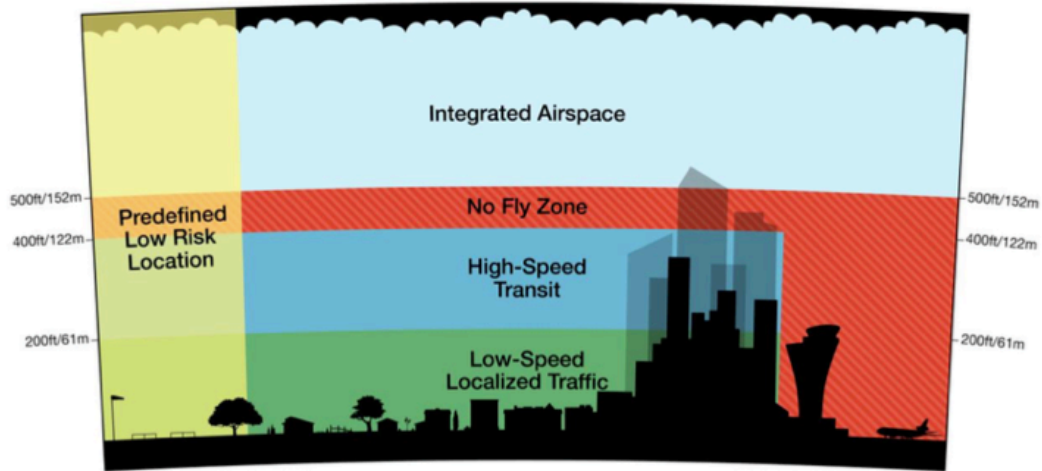
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<sup>32</sup> Locate in Kent provides a database of opportunities

to 200 feet would be designated for low-speed traffic, between 200 and 400 feet for high-speed transit, with a no fly zone between 400 and 500 feet.

6.3.27 The CAA has granted Amazon permission to test its drones in the UK. The company's UK operation is currently based in Cambridge with testing reported to be at a location outside the City. An integrated drone/airport operation, whilst fraught with safety problems and many years from CAA certification, could potentially reduce the number of trucks on the UK's roads. Using Manston Airport and its location close to the Thames Estuary may provide an exciting future for Thanet, putting the Island at the heart of the UK's distribution network. However, because the use of this technology is some way from implementation, no change to the demand for Manston has been made to reflect this possibility.

**Figure 16**      *Airspace design for small drone operation*



Source: Amazon, Revising the Airspace Model for the Safe Integration of Small Unmanned Aircraft Systems. Available from [https://images-na.ssl-images-amazon.com/images/G/01/112715/download/Amazon\\_Revising\\_the\\_Airspace\\_Model\\_f\\_or\\_the\\_Safe\\_Integration\\_of\\_sUAS.pdf](https://images-na.ssl-images-amazon.com/images/G/01/112715/download/Amazon_Revising_the_Airspace_Model_f_or_the_Safe_Integration_of_sUAS.pdf), page 2.

**Summary of scenario impacts**

6.3.28 Table 10 summarises the impact of each of the identified scenarios on the Manston air traffic forecast.



**Table 10** *Impact of scenarios on the Manston forecast*

<b>Scenario</b>	<b>Impact</b>
<b>The UK's position in Europe</b>	Unknown therefore demand unchanged
<b>Changes to fuel prices</b>	Unchanged demand
<b>The availability of more efficient aircraft</b>	No increase over period of investigation made
<b>Onshoring of manufacturing in the UK</b>	Taken into account where possible
<b>Changes to logistics and transport systems in Kent</b>	Taken into account where possible
<b>Dramatic changes to economic performance</b>	No change proposed
<b>Manston becomes a major integrator/forwarder base</b>	Part incorporated but demand likely to increase further
<b>Manston becomes an Amazon base</b>	Considered a possibility for Manston
<b>Manston becomes a hub for drone activity</b>	No change proposed

## **6.4 Manston Airport passenger demand**

6.4.1 Whilst RiverOak will be focusing on the development of Manston as an air freight airport, passenger services will be encouraged to provide an amenity for the local area. The airport could provide landing slots at convenient times that are not available at other airports in the South East. Infrastructure is planned to handle both passenger and air freight traffic.

6.4.2 This research highlighted what the CAA considers to be the marginal airlines at Heathrow (see Table 8 on page 50). However, since there is no particular intelligence that suggests these airlines might move to Manston if the airport was operational, no demand from these airlines has been taken into account. Issues concerning passenger flights that have been considered include:

- Reduced sector length making operations more cost effective
- Access to a major passenger hub through KLM
- Base for a number of low cost carrier aircraft
- Seasonal flights to and from Eastern Europe
- The forecast doubling of flights between the UK and China
- Cruise ship flights
- Paramount theme park and Ebbsfleet Garden City development

6.4.3 Specific demand refers directly to the findings shown in section 5.4 on page 46. This demand includes:

- KLM resuming operations twice daily to Amsterdam
- A LCC base two aircraft at Manston
- The charter market resuming with services to European and potentially US destinations
- A scheduled service by an airline struggling to find slots at other airports
- Flights from the US that tie up with cruise ships leaving from Dover

## 7 Conclusions

7.0.1 This report demonstrates the potential demand for Manston Airport, indicating its viability and clearly showing that Manston Airport is a valuable local, regional and national asset, providing airport infrastructure badly needed by the UK. Without additional runway capacity, the UK is missing out on potential trade, particularly with non-EU countries. More than four million HGV movements are currently made on Eurotunnel and through the Port of Dover. The advent of Brexit and potential restrictions and delays at the Channel Crossings will be a cause of concern for those freight shippers reliant on this form of transport. As such, and with Manston Airport reopened, there may be a change in the model used, away from trucking to Europe and onto aircraft.

7.0.2 Manston Airport, operational for 100 years until its closure in May 2014, has the potential to attract and accommodate considerable cargo movements and to handle a number of passenger flights, connecting Kent to the rest of the world. Indeed, due to its size, location and lack of airspace constraints, Manston is the only viable option in the South East.

### 7.1 Recommendations

7.1.1 A number of issues have been identified through this research. These provide opportunities for Manston Airport to attract aircraft movements and include:

- Lack of available slots at other South East airports
- Bumping of freight from passenger aircraft
- Security issues particularly with oversized cargo
- Speed of turnaround

7.1.2 A number of markets for Manston Airport have been identified through this research. These include:

- Parcels and packages through an integrator
- Perishables including fruit, vegetables, flowers, fish, and shellfish
- Oversized freight
- Formula One and luxury cars
- Live animals
- Time sensitive items such as aircraft and the oil and gas industry
- Humanitarian and military flights

7.1.3 Additionally, there are opportunities in aircraft recycling and other revenue generating operations including MRO, a FBO, and a flying school. If warehousing and office space can be made available locally, there is potential to attract an integrator to the airport. Manston is well located to play a vital role in the supply chain activity that will be stimulated by initiatives such as the Lower Thames Crossing and the Thames Estuary 2050 Growth Commission. It is therefore recommended that the airport operator incorporate these opportunities into their future development and marketing plans.

### 7.2 Implications for policy

7.2.1 The UK needs a robust policy for aviation with more attention paid to air freight than has been the case in the past. Whilst UK governments no longer operate airports or build runways, they play a key role in ensuring capacity is built or retained where it

most benefits the national interest. Government must therefore use its powers to make sure a framework for aviation is always in place, seamlessly migrating between changes of administration. This will, as Philip Hammond said (Department for Transport, 2011, p. 5), rely on moving beyond the sterile debate of many years and working towards a broad consensus on the UK's long-term view of the significance of aviation to the Country.

7.2.2 Issues of global environmental impact, such as aircraft emissions, cannot be dealt with by airport managers alone but must be the province of national government in partnership with other world leaders. These issues are frequently raised during public consultations but it seems unrealistic to expect airport managers to provide innovative solutions. Noise is a ubiquitous concern around airports, particularly from night flights, and the government must make clear their policy and the mitigations they deem appropriate and achievable so that airport managers can implement best practice across the UK. Repeating the same debate time after time does nothing to improve dynamism in the airport sector.

7.2.3 There can be no doubt that the UK needs a National Air Freight Demand Model just as it has a passenger equivalent in the NAPDM (National Air Passenger Demand Model). It is hoped this document will support the development of such a national model, which, as with the passenger version, would have a sister allocation model to allow forecasts to be made at airport level. Indeed, one of the recurrent questions raised during this research was around freight traffic forecasting and there seems to be wide confusion about demand in the UK. Some stakeholders quote a stagnation of air freight in the UK, failing to grasp the correlation between demand and a lack of capacity. Improved demand models would help all parties understand the true air freight picture in the UK.

### 7.3 Implications for RiverOak

7.3.1 The extensive research that informed this report have been a costly and time-consuming exercise and are only a part of the work being undertaken to secure the future of Manston as an operational airport. This report confirms RiverOak's faith in Manston, providing evidence that the airport has the location, airspace, capacity potential and demand required to persuade the Secretary of State to make the decision to grant a DCO that would allow the redevelopment and reopening of the airport.

7.3.2 The findings from this research can play a key role in informing government policy on air freight in the UK. It also provides a platform for lobbying government and industry organisations and RiverOak will no doubt continue to press for a political environment that is conducive to the vitality of the aviation sector. Such an environment will allow airport management to focus on resolving local concerns and harnessing opportunities for innovation.

7.3.3 One of the most gratifying aspects of carrying out this research was the widespread support, and often passion, for Manston Airport encountered from people in all types of organisation. Manston Airport is in a unique position in the UK, having vocal support from the local community and from a number of airlines and other organisations. It is essential for RiverOak to continue to harness the interest of the local community and to work with them to ensure the area gains the maximum benefit from a vibrant operational airport. In a time of cynicism towards participation, RiverOak is blessed with a local community that is willing and able to engage on all sides of the multiple debates that surround airport operations. Providing rewarding business and employment opportunities, and working with local providers to ensure high quality

education and training for local people will be a fitting acknowledgment of their continued commitment to Manston Airport.

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A NATIONAL AND REGIONAL  
AVIATION ASSET

VOLUME III  
The forecast

MARCH 2017

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**Authorship and acknowledgements:**

This report has been produced by Dr Sally Dixon, an independent aviation and business research consultant. The author wishes to thank all those who contributed to the research. However, the views expressed herein are those of the author only and are based upon independent research by her.

## Executive Summary

This report sets out the forecasts for Manston Airport, for freight and passengers for the first 20 years of operation (currently projected to be 2020 to 2040), and detailing the infrastructure required to deliver the forecast. The report provides the necessary data to underpin the proposal to retain Manston as an airport and re-develop the site as a nationally significant infrastructure project.

Manston Airport is located in the South East of the UK where aviation industry demand is highest and most constrained. The airport has a long runway; an ideal airspace location; benefits from easy surface access to London and the rest of the UK; and can provide rapid handling and turnaround times for air freight. The airport would provide almost immediate relief to the pressing situation that is causing considerable loss of potential trade to the South East each year the UK remains without additional runway capacity.

**Table 1 Summary 20 year freight and passenger forecast**

	Freight moves	Pax moves	Total moves	Inbound tonnage	Outbound tonnage	Total tonnage	Passenger numbers
<b>Y1</b>	0	0	0	0	0	0	0
<b>Y2</b>	5,252	0	5,252	39,865	56,687	96,553	0
<b>Y3</b>	5,804	4,932	10,736	47,335	61,218	108,553	662,768
<b>Y4</b>	9,700	5,024	14,724	76,326	90,765	167,092	679,868
<b>Y5</b>	9,936	5,064	15,000	81,455	92,286	173,741	686,672
<b>Y6</b>	10,144	6,702	16,846	85,832	95,604	181,436	965,295
<b>Y7</b>	10,872	6,754	17,626	92,357	100,551	192,908	975,591
<b>Y8</b>	11,184	6,754	17,938	96,979	103,694	200,673	975,591
<b>Y9</b>	11,392	6,754	18,146	98,585	104,660	203,245	975,591
<b>Y10</b>	11,600	6,754	18,354	102,609	109,742	212,351	975,591
<b>Y11</b>	12,064	6,966	19,030	107,592	114,785	222,377	1,011,587
<b>Y12</b>	12,547	7,186	19,733	114,034	120,473	234,508	1,049,022
<b>Y13</b>	13,048	7,416	20,464	118,691	125,999	244,690	1,087,954
<b>Y14</b>	13,570	7,654	21,224	125,949	131,039	256,989	1,128,444
<b>Y15</b>	14,113	7,902	22,015	133,064	137,515	270,579	1,170,553
<b>Y16</b>	14,678	8,160	22,837	140,889	143,015	283,904	1,214,347
<b>Y17</b>	15,265	8,428	23,693	146,524	150,070	296,594	1,259,892
<b>Y18</b>	15,875	8,707	24,582	156,271	156,073	312,344	1,307,259
<b>Y19</b>	16,510	8,997	25,507	162,522	162,316	324,838	1,356,521
<b>Y20</b>	17,171	9,298	26,469	171,949	168,809	340,758	1,407,753

Table 1 shows a summary of the freight and passenger forecasts for the first twenty years of operation, from 2020 to 2040, following the reopening of Manston Airport. It should be noted that these forecasts are considerably more conservative than those derived by a macro level, 'top down' method. These forecast have been compiled using a 'bottom up' approach and refer to specific types of traffic. Nonetheless, the forecast shows the airport exceeding the Nationally Significant Infrastructure Project (NSIP)

criteria for 10,000 freight movements by Year 6. Exports are forecast to slightly exceed imports, particularly in the early years of operation.

Manston is also strategically well located to play a vital role in the supply chain that will be stimulated by initiatives such as the Lower Thames Crossing and the Thames Estuary 2050 Growth Commission. What is clear from the details in this report and the others that make up the series of reports is that Manston is capable, in terms of its geographic and airspace position, of making a substantial contribution to the future economic and social well-being of the Nation. The research conducted to derive the forecasts shown in this report show that the opening of Heathrow's third runway will not hamper Manston's viability, whenever the additional capacity at Heathrow becomes operational.

Whilst the RiverOak focus is on the air freight market, the airport is also forecast to handle a considerable number of passengers. Driven by the lack of capacity at south east airports, passenger numbers at Manston Airport are forecast to commence at around 660,000 per year, rising to 1.4 million by Year 20 of operation. Manston can provide a base for a number of low cost carrier aircraft, host seasonal charter flights, and work with Dover Harbour Board to receive passengers destined for cruise ships. The Paramount theme park and Ebbsfleet Garden City development are also expected to increase demand for both in- and outbound flights.

Infrastructure requirements are scheduled to match forecast demand and construction will take place in four phases. These will be prior to operations commencing (in Year 2 for freight, 2021, and Year 3, 2022, for passengers), in Year 4, Year 10, and Year 15. Operations will commence with eight stands for freighters (where it previously operated with one) and three for passenger aircraft. The number of freighter stands will rise to 14 in Year 4, 16 in Year 10 and 19 in Year 15. Passenger aircraft stands will increase from three to four in Year 15. Warehousing and fuel storage will be provided to meet the demand forecasts.

This report concludes that Manston Airport is of strategic importance to the UK, having the ability to attract in excess of 10,000 cargo movements by Year 6 of operation. In light of the business case described in this report, there can be little doubt that, in an increasingly competitive economic climate, the UK simply cannot afford to lose one of its long-serving airports. Indeed, this report shows that Manston Airport is a very valuable local, regional and national asset, capable of providing infrastructure badly needed by the UK and playing a role in helping Britain's connectedness and trade with the rest of the world. In short, Manston comprises critical national infrastructure, important for the economic well-being of the UK.

## Definitions and abbreviations

ACI	Airports Council International
Air freight	The carriage of goods by aircraft
ATM	Air Transport Movement and/or Air Traffic Movement
Backload	The transportation of cargo on a return trip to the originating airport
Belly-freight	Cargo stowed under the main deck of a passenger aircraft
CAA	Civil Aviation Authority
Cargo	The term cargo and freight are used interchangeably in this report and refer to goods carried by road, sea or air
Consolidator	A person or company who combines small volumes of commodities from different originators so they can be shipped together and who usually owns the aircraft used for transport
DCO	Development Consent Order
Dedicated carrier	An aircraft that transports only freight (not passengers)
DfT	Department for Transport
EU	European Union
Eurostat	A Directorate-General of the European Commission that provides statistical information to EU institutions and promotes the harmonisation of statistical methods across member states
FBO	Fixed Base Operation
Freight	The term freight and cargo are used interchangeably in this report and refer to goods carried by road, sea or air
Freight forwarder	A person or company that organises the shipment of commodities from an originator (manufacturer, producer, etc.) to a destination (customer, etc.) but generally does not own the aircraft used in the transport
LCC	Low cost carrier
Long haul	No generally agreed definition as 'long' or 'short' is subjective. In Europe, a flight taking more than four hours to complete and/or originating/destined outside Europe is considered long haul
MRO	Maintenance, repair and overhaul facility
NSIP	Nationally Significant Infrastructure Project
Pax	Passengers
Short haul	As per long haul above. Short haul in Europe generally indicates a flight within Europe so taking around four hours or less to complete
TfL	Transport for London
UK	United Kingdom
USA	United States of America





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# 1 Introduction

1.0.1 This report presents the air traffic forecasts that have been made for Manston Airport. These forecasts include freight and passenger movements for the first 20 years of operation of the airport, from 2020 to 2040. The report also outlines the infrastructure requirements the airport would require in order to deliver the forecast demand.

## 1.1 Background

1.1.1 Pent up demand for freight carrier slots in the South East makes forecasts based on extrapolation of past activity potentially inaccurate. Rather than merely extrapolating past activity, studies that have focused on the 'lost' or suppressed demand include York Aviation's work (2015, p. 19). This report, prepared for the Freight Transport Association and Transport for London, considers the potential long-term effects on the UK economy of changes in the UK air freight industry resulting from different potential development scenarios for runway capacity in London. York Aviation's significant report calculates that by 2050 with no additional airport capacity, 2.1 million tonnes of freight, equating to 80,000 freighter movements, will have to be trucked to northern Europe to find airport slots.

1.1.2 Transport for London, who manages the Capital's transport network on behalf of the Mayor of London, also prepared forecasts for capacity requirements. Their forecast is rather more conservative, perhaps due to the two-year difference in its compilation, which coincided with a period of stagnation in air freight, which began growing again mid-2013. The TfL forecast shows that by 2050, 54,000 potential freighter movements will not be met by the current capacity in the South East (TfL, 2013), resulting in continued and increasing loss of air freight to northern European airports.

1.1.3 Examples of unconstrained freight-focused airports in Europe show the difference between a true market, where capacity is available to attract freighter flights, and a constrained market such as that in London. However, forecasts are usually calculated for a region or country before allocating a proportion to individual airports, missing any currently unmet demand. The work detailed in this report takes a different approach by using a qualitative method, identified from the literature review as a more reliable means of forecasting. The approach identifies potential users of Manston Airport and builds a forecast from this intelligence.

## 1.2 Aim and objectives

1.2.1 The RiverOak vision is to establish Manston Airport as a successful freight-focused airport with supplementary passenger operations. The aim of this report is to provide the forecast figures that underpin the proposal and supports business planning and development at Manston Airport.

1.2.2 There are a number of objectives set out for this work and in particular the results will:

- Provide the information required to support the Development Consent Order (DCO) application
- Inform stakeholders during consultation
- Provide information for Government and industry organisations

### 1.3 Report structure

1.3.1 The report commences by providing the background to the forecasting method chosen to assess the air freight and passenger demand for Manston Airport. Having established the background, the forecasts are presented, shown by freight movements and tonnage, and by passenger movements and numbers. Next, details of the infrastructure required to deliver the forecast are shown. The report concludes with a summary of the case for Manston Airport.

## 2 Forecasting methods

2.0.1 This section describes the way in which both air freight and passenger forecasting methods were derived and details the models used in the short, medium, and long term.

### 2.1 Air freight forecasting method

2.1.1 Whilst methodologies for passenger air travel forecasting are well developed, freight markets are much more problematic. As Ishutkina, MIT International Center for Air Transportation (ICAT), says:

*“freight markets are generally more liberalized when compared to the passenger markets. Therefore, national carrier data do not accurately depict the cargo flows taking place to and from a particular country due to the dominance of only a few major international cargo carriers such as DHL, FedEx and UPS. In addition, aggregate freight data may misrepresent the traffic flows for a particular country because they do not capture the asymmetry, which is often present in cargo flows between economies. In other words, the national cargo carrier data are not representative of the freight flows to and from a particular country.”* ((Ishutkina, 2009, p. 55)

2.1.2 A detailed review of air freight forecasting literature is presented in the report, ‘Manston Airport: A National and Regional Aviation Asset, Volume II: A qualitative study of potential demand’. This review showed that a qualitative approach was the most appropriate method through which to gather data on the potential demand for an individual airport. The data collected is also shown in Volume II of this series of reports.

2.1.3 However, in order to provide a detailed picture of the potential air freight and passenger demand for Manston Airport, it was necessary to convert this information into a quantitative forecast. This type of forecasting can, of course, be handled in a number of ways and there is unlikely ever to be consensus on either the approach or the data used. There were two main options for forecasting freight at Manston Airport. The first was to use forecasts from one or more sources (such as Eurostat, the DfT, etc.) and ‘divert’ a proportion of national and international (Northern Europe including France, Belgium, Holland) traffic to Manston. The issue with this approach is the difficulty in identifying a realistic formula by which to divert air freight to Manston.

2.1.4 The second option was to take a qualitative approach focused on collecting market data. This allows base data to be derived from a method that takes account of how commodities are currently transported and how they are likely to be transported in the near future. This approach is particularly applicable in the Manston case since the airport is not currently operational. Indeed, in the short-term, any useful forecast needs to be built from the likely behaviour of potential airport users.

2.1.5 This method is confirmed by the ACI-North America, who represents local, regional and state governing bodies that own and operate commercial airports in the United States and Canada, and recommends deriving customised inputs from a detailed market assessment. This assessment should be informed by carriers, their business partners and other supporting entities in the air freight community (ACI-NA, 2013, p. 3). The Airports Commission also recommends using the Delphi Method<sup>1</sup>, pointing out that

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<sup>1</sup> A forecasting method based on gathering opinions from a panel of experts

relying on, “a single, central-point forecast would be a risky approach” (Airports Commission, 2013, p. 8).

### Primary data collection

2.1.6 As such, a qualitative approach forms the basis for the short and medium-term (years one to ten, 2020 to 2029) air freight forecast at Manston Airport. The collection and analysis of this data is described in Volume II of this series of reports and consisted of face-to-face interviews with representatives from key stakeholder groups including:

- Kent transport infrastructure
- Government and public sector
- Industry associations
- Freight forwarders and consolidators
- Local businesses who import/export
- Cargo airlines

2.1.7 The freight forecast for Manston Airport is split by:

- Air Traffic Movements
- Aircraft type (wide and narrow-bodied)
- Number of tonnes or passengers
- Imports and exports by tonnage

### Secondary data

2.1.8 Secondary data was used to provide an overview of the industry, which allowed the primary data to be put into a global and national context. Secondary data was also used to provide information on macro-level growth in the industry, which allowed a percentage increase, year-on-year in the long-term (from Years 11 to 20) to project growth from the short- and medium-term market data forecasts.

2.1.9 IATA’s November 2016 data<sup>2</sup> shows global freight volumes up 6.8% compared to the previous year and annual growth in industry-wide passenger traffic accelerated to 7.6%. In terms of capacity, IATA data shows that to November 2016, freight capacity grew by 4.4% from the previous year. This was the fourth consecutive month in which year-on-year freight capacity has grown more slowly than demand.

2.1.10 Boeing’s traffic and market outlook describes an air cargo market recovery that began in 2014. Their market outlook 2016-2035 (Boeing, 2016a) forecasts air cargo traffic, measured in revenue tonne-kilometers, at 4.2% although there are differences between the forecasts for regional pairs. For example, Asia-Europe is forecast to show growth of 4.6% (Boeing, 2016b, p. 16). Airbus forecast growth at 4% globally (Airbus, 2016). The Boeing and Airbus forecasts are based on the opinions of experts who summarise the world’s major air trade markets and identify key trends. These organisations present comprehensive forecasts between and within each of the air freight markets as well as for the world freighter airplane fleet.

2.1.11 Of interest to the forecast for Manston Airport is an observation made by Boeing, who refer to the continued requirement for dedicated air freight operations:

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<sup>2</sup> <http://www.iata.org/whatwedo/Documents/economics/Airlines-Financial-Monitor-Dec-16.pdf>

*“dedicated freight services offer shippers a combination of reliability, predictability, and control over timing and routing that is often superior to that of passenger operators. As a result, freighters are expected to continue carrying more than half of global air cargo traffic to satisfy the demanding requirements of that market.”* (Boeing, 2014)

2.1.12 The CAA produces airport statistics by month and by year although 2016 annual figures were not available at the time of compiling this report. Their 2015 statistics show that around 313,000 tonnes of freight was carried on dedicated freighters at the London airports during the year, an increase of 3% over the previous year. Freight carried on passenger aircraft fell over the same period by around 1% in the London area, perhaps indicating the impact of LCCs, who do not carry belly-freight, on the air freight market.

2.1.13 Freight airlines do not publish timetables, with only some scheduled freighter operations being shown in OAG (an air travel intelligence company based in the UK) information. This makes gathering base data difficult and forces a number of assumptions to be made by those who forecast air freight using a ‘top down’ quantitative approach. It is perhaps for this reason that the DfT’s aviation model<sup>3</sup> only forecasts freight aircraft for the purpose of assessing runway capacity constraints (para 3.47). Underlying the freighter forecast is a simple projection of UK national air freight tonnage and this has not been updated since 2011 (para 2.61). There is no current forecasting for bellyhold or dedicated freighter tonnage.

## **2.2 Short- and medium-term freight forecasting model**

2.2.1 For this project, short-term is defined as years one to five and medium-term as years six to ten of operation. For Manston, these years are 2020 to 2024 for short-term and 2025 to 2029 for medium-term. 2030 to 2039 are defined as long-term for the purposes of this forecast.

2.2.2 The qualitative data collected for this research and discussed in Volume II of this series of reports, highlights the ‘push’ and ‘pull’ factors that are likely to drive demand for Manston Airport. ‘Push’ factors are those that may lead customers away from other airports or prompt a change to current models. These factors include the bumping of belly-freight at Heathrow, issues with the Channel crossings, increasing problems with security, and potential changes to the current dominance of belly freight in the UK. ‘Pull’ factors work to attract customers to the airport. These may include the speed of turnaround achieved by Manston, cutting edge security clearing, and the geographic location of the airport and its airspace.

2.2.3 Whilst one of the key drivers for demand at Manston is a lack of capacity at other airports in the South East, there are a number of push and pull attraction factors to take into account. Indeed, the current UK air freight model is for shippers to preference bellyhold cargo, which can take up to a week to arrive and dispatch from some of the Country’s airports. The qualitative research detailed in Volume II of this research describes the frustrations associated with this model and the impact at all levels of the supply chain. It seems likely, therefore, that the model will change, much as the model for passenger flights changed some decades ago with low cost carriers now dominating many airports, operating point-to-point at competitive prices.

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<sup>3</sup> <https://www.gov.uk/government/publications/uk-aviation-forecasts-2013>



2.2.4 In addition, the qualitative findings indicated several issues that present opportunities for Manston Airport. These include:

- The sufficiency of slots at South East airports
- Bumping of freight from passenger aircraft
- Security issues particularly with outsized cargo
- Speed of turnaround and bottlenecks for air freight a particular concern due to, “longer processing time because of security” (ACI-NA, 2013, p. 5)
- Review of current regulatory controls on the charges and services Heathrow offers to airlines, due to expire at the end of 2018

2.2.5 Interviews undertaken as part of the qualitative research also indicated a number of potential markets for Manston Airport. These include:

- Perishables including fruit, vegetables, flowers, fish, and shellfish
- Outsized freight
- Formula One and luxury cars
- Live animals
- Time sensitive items such as aircraft parts and the oil and gas industry
- Humanitarian and military flights

2.2.6 As such, and also based on market knowledge and confidential discussions with airlines, airports, and organisations involved in the freight forward and integrator markets, a short and medium-term forecast was produced. The freight movements shown in the forecast relate, where possible, to particular carriers identified through the qualitative research. The identity of these carriers is necessarily confidential for commercial reasons. The forecast includes ten aircraft of various types that will be recycled at Manston Airport. These aircraft will arrive without cargo.

2.2.7 Outputs for the freight forecast show the number of movements and the tonnage by year for imports and exports. Tonnage figures have been calculated from the maximum payload for each aircraft type and multiplying by 65% to give an indication of tonnage for the main route (either import or export). 65% is an average figure that intends to cover both full loads and out-of-gauge (cargo that exceeds the internal dimensions of a container by length, width or height) rush parts (such as critical parts for oil rigs, aircraft, etc.).

2.2.8 Backloads (tonnes carried on the return flight) have been calculated by applying a small percentage, sometimes zero in the early years, increasing over time dependent on the potential in that market in the longer-term. An indication of origin/destination pairs is also provided. The freighter fleet mix is shown using the ICAO aircraft design code, which are:

- Code C –(ATR-72, B727, B737, A310, A320, etc.)
- Code D – Heavy transport (B757, B767, etc.)
- Code E - (B747, L-1011, MD-11, DC-10, A330, etc.)
- Code F- (B747-8, A380-800F - when available)

2.2.9 Additionally, the costs of switching airports have been taken into account when considering the likelihood of integrators and freight forwarders moving to Manston. These include (CAA, 2013, p. 26):

- The cost of physical relocation
- Cancellation of long-term contracts
- Loss of economies of scale, although if an entire operation is switched, economies of scale would be gained at the new airport
- Market effects such as marketing new routes and a potential loss of custom in the early years following the switch
- Network effects lost by switching to a smaller airport
- Capacity constraints at other airports, particularly in slot allocations
- Sunk costs such as an airline's investment in the airport from which they are switching

### 2.3 Long-term freight forecasting model

2.3.1 For this project, long-term is defined as in excess of ten years of operation (from 2030). Whilst the third runway at Heathrow may become operational during this timeframe, capacity constraints are predicted to continue in the South East during the forecasting period. These constraints will make operating from the hub airports increasingly difficult and potentially more expensive. Recent research by SEO Amsterdam Economics and Cranfield University shows that every 10% increase in airport congestion leads to an aggregate 1.4% to 2.2% increase in airfares<sup>4</sup>. Additionally and as Ishutkina says:

*“secondary airports have several other advantages over the major airports. These include lower-cost facilities and less congestion which allows rapid turnaround times and hence more efficient aircraft operations” (Ishutkina, 2009, p. 91).*

2.3.2 In the long-term, forecasts generally have less reliance on qualitative methods. Any trends flagged during the interviews with specialists have been taken into account by adjusting the forecasts in the short and medium-term. Therefore, from Years 11 to 20 an annual percentage growth has been applied to the figures derived for Year 10. 2016 figures show a notable increase in air cargo demand by almost all carriers, which the latest IATA data shows to be 6.8% in global air freight tonne kilometres (FTKs) for the year to November 2016. After a period of stagnation that followed the global economic slowdown, which Boeing describe as a *“temporary situation”*, they say:

*“As global GDP and world-trade growth accelerate, air cargo traffic, as measured in revenue tonne-kilometers, is projected to grow an average 4.2 percent per year over the next 20 years. World air-cargo volume, in spite of exogenous shocks arising from economic and political events and natural disasters, grew an average of 5.2 percent per year over the last three decades.” (Boeing, 2016b, p. 16)*

2.3.3 However, to be conservative, and in line with the Airbus forecast, a 4% uplift on the Year 10 figures has been applied to extrapolate the long-term forecast for Manston Airport.

2.3.4 The potential for an airline to upgrade the aircraft in their fleet has also been taken into account and is shown as a migration from one aircraft type to the forecast upgrade in the forecast model.

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<sup>4</sup> <http://www.airport-world.com/news/general-news/6028-the-cost-of-congestion-at-europe-s-busiest-airports-sky-high-air-fares.html>

## 2.4 Passenger forecasting method

2.4.1 As with the air freight forecast, the short to medium-term passenger model is built from market information, which allows specific airline movements and associated aircraft to be used in the forecast. Instead of attempting to either extrapolate from past movements or to allocate overspill from capacity-constrained airports in the South East, intelligence was sought from airlines and experts on the potential markets Manston could attract. Interviews were carried out to establish these potential markets for the airport, which include:

- Resumption of scheduled service twice daily to a hub airport
- A LCC base for two aircraft at Manston rising to three
- The charter market resuming, stimulated by regional developments such as the Paramount theme park and Ebbsfleet Garden City development, which are expected to increase demand for both in- and outbound flights
- Flights from the US that tie up with cruise ships leaving from Dover

2.4.2 Further information can be found in the document “Manston Airport: A National and Regional Aviation Asset, Volume II: A qualitative study of potential demand. Following this qualitative step, a quantitative assessment of the likely movements per annum was estimated through discussion with the airlines involved or by examination of previous schedules and potential demand.

## 2.5 Passenger forecasting model

2.5.1 The passenger forecast for Manston has been calculated from specific airline movements except for the charter market, which is derived from an estimate of the number of movements Manston is likely to handle. As described above, market intelligence has been used to calculate the short to medium-term forecasts.

2.5.2 The latest IATA figures show that to November 2016, the annual growth in passenger volumes was 7.8%<sup>5</sup>. Boeing forecast passenger traffic grow to 2035 at 4.8%<sup>6</sup> annually. However, to be conservative, an increase of 4% has been applied to the Year 10 forecast to derive the forecasts in Years 11 to 20.

2.5.3 The calculation used to forecast the number of passengers per movement takes the capacity of each aircraft type and applies an average load factor of 65% for the scheduled KLM flight (gauged from previous Manston figures) and 90% for all other services, an industry norm. These load factors are applied on inbound and outbound movements.

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<sup>5</sup> <http://www.iata.org/whatwedo/Documents/economics/Airlines-Financial-Monitor-Dec-16.pdf>

<sup>6</sup> <http://www.boeing.com/commercial/market/long-term-market/traffic-and-market-outlook/>

### 3 Manston Airport freight forecast

3.0.1 The previous sections have described the work carried out to determine a forecast for Manston Airport. RiverOak plan to focus on freight, where demand is demonstrable and considerable. There is clear demand for perishable goods, particularly fruit, vegetables, flowers, fish and shellfish. The perishable market has been a staple for Manston in the past, and the airport, with reduced flying time compared with other airports, has a reputation for the speed at which cargo can be offloaded onto trucks. Timely delivery of fresh produce is vital to supermarkets, which require the maximum shelf life to reduce wastage and increase profit margins.

3.0.2 Manston Airport is also well placed to be active in niche markets such as the movement of luxury street vehicles from the Middle East and Formula One cars globally. Manston is also capable of handling live animals such as breeding stock and racehorses. The airport will be able to security screen outsized cargo including oil and gas equipment, which cannot currently be scanned at other airports. These niche markets can provide considerable business for the airport.

3.0.3 Manston has a history of handling military and humanitarian operations and these are expected to return to Manston when the airport is operational. A forecast that matches past operations has therefore been included. There is strong interest in aircraft recycling at Manston and, although this provides only a limited number of movements per year (around ten), would provide the airport operator with many opportunities to derive revenue, create jobs and increase skills in the region.

3.0.4 The forecasts shown in this section commence in the second year of operation for freight and the third for passengers. This delay in commencing operations is to allow time for extensive development to take place at the airport, as detailed in Section 5.

#### 3.1 Freight forecast by movements

3.1.1 The freight movements shown in the forecast relate to particular carriers where possible although this level of detail is not possible in all cases. These findings have been used to calculate the short and medium-term forecasts. From Y11, an incremental growth rate of 4% per annum has been applied (see Section 2.3 for full details). Table 2 shows the number of freighter movement by year from the first to 20<sup>th</sup> year of operation by ICAO aircraft design code. These codes are<sup>7</sup>:

Code C: Medium range aircraft such as the ATR-72, B727, B737, A310, A320

Code D: Heavy transport such as the B757, B767

Code E: B747, L-1011, MD-11, DC-10, A330, etc.

Code F: B747-8, A380-800F (when available), etc.

3.1.2 It should be noted that one movement is either one landing or one take off. A 'flight' often refers to two movements – one take off and one landing or vice versa. The forecast includes 10 aircraft of various types that will be recycled at Manston Airport. These aircraft will arrive without cargo.

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<sup>7</sup> Dr. A. Trani, Virginia Tech, "Aircraft Classifications" (undated). Available from [http://128.173.204.63/courses/cee5614/cee5614\\_pub/acft\\_classifications.pdf](http://128.173.204.63/courses/cee5614/cee5614_pub/acft_classifications.pdf)

**Table 2 Freighter movements by year by ICAO design code**

Freight movements	Code C	Code D	Code E	Code F	Various (recycling)	Total
Y1	0	0	0	0	0	0
Y2	1,872	2,174	1,144	52	10	5,252
Y3	2,184	2,252	1,280	78	10	5,804
Y4	3,640	4,514	1,432	104	10	9,700
Y5	3,744	4,514	1,564	104	10	9,936
Y6	3,848	4,592	1,564	130	10	10,144
Y7	4,472	4,670	1,564	156	10	10,872
Y8	4,680	4,748	1,564	182	10	11,184
Y9	4,888	4,748	1,564	182	10	11,392
Y10	4,992	4,826	1,564	208	10	11,600
Y11	5,192	5,019	1,627	216	10	12,064
Y12	5,399	5,220	1,692	225	11	12,547
Y13	5,615	5,429	1,759	234	11	13,048
Y14	5,840	5,646	1,830	243	12	13,570
Y15	6,074	5,872	1,903	253	12	14,113
Y16	6,316	6,106	1,979	263	13	14,678
Y17	6,569	6,351	2,058	274	13	15,265
Y18	6,832	6,605	2,140	285	14	15,875
Y19	7,105	6,869	2,226	296	14	16,510
Y20	7,389	7,144	2,315	308	15	17,171

3.1.3 The Transport for London work (TfL, 2013) talks of diverting 14,000 movements to airports outside the London airspace such as Manston. This forecast shows the Nationally Significant Infrastructure Project (NSIP) threshold for 10,000 freight movements per annum being achieved in Year 6 and the 14,000 movements discussed by TfL by Y15.

## 3.2 Freight forecast by tonnage

3.2.1 Further information on how these markets were identified can be found in Volume II of this series of reports. Markets include:

- Global import and export for parcels and packages
- Africa particularly for the import of flowers, fruit and vegetables
- China for the import of consumer goods and export of luxury items (included under niche freight operations but, due to a lack of concrete evidence the forecast is extremely conservative)
- Middle East particularly for export markets including fish and shellfish
- Pakistan including the import of clothing and the export of consumer goods
- Russia for gas and oil equipment and the export of luxury items
- South America for the import of perishable fresh produce
- US for a range of import and exports

3.2.2 The freight forecast by number of tonnes and ICAO design code for exports from Manston Airport is shown in Table 3. The method used to calculate tonnage from

movements is shown in Section 2.2. Tonnage figures have been calculated from the maximum payload for each aircraft type and multiplying by 65% to give an indication of tonnage for the main route (either import or export). Air freight carriers generally calculate the price of the main route to cover their costs. Backloads therefore generate additional profit for the airline but are not essential to the operation of the route since the cost has been covered by the main journey.

**Table 3 Export tonnage by year and ICAO design code**

	Class C	Class D	Class E	Class F	Total freight outbound
<b>Y1</b>	0	0	0	0	0
<b>Y2</b>	2,474	21,700	30,485	2,028	56,687
<b>Y3</b>	3,961	22,841	31,374	3,042	61,218
<b>Y4</b>	4,340	39,192	43,178	4,056	90,765
<b>Y5</b>	4,543	39,192	44,495	4,056	92,286
<b>Y6</b>	5,056	40,333	45,145	5,070	95,604
<b>Y7</b>	6,206	42,487	45,774	6,084	100,551
<b>Y8</b>	6,544	43,628	46,424	7,098	103,694
<b>Y9</b>	6,882	43,628	47,053	7,098	104,660
<b>Y10</b>	7,936	45,783	47,911	8,112	109,742
<b>Y11</b>	8,254	47,614	50,481	8,436	114,785
<b>Y12</b>	8,584	50,615	52,500	8,774	120,473
<b>Y13</b>	8,927	52,640	55,307	9,125	125,999
<b>Y14</b>	9,284	54,746	57,520	9,490	131,039
<b>Y15</b>	9,656	58,169	59,820	9,869	137,515
<b>Y16</b>	10,042	60,496	62,213	10,264	143,015
<b>Y17</b>	10,444	64,250	64,702	10,675	150,070
<b>Y18</b>	10,861	66,820	67,290	11,102	156,073
<b>Y19</b>	11,296	69,493	69,982	11,546	162,316
<b>Y20</b>	11,748	72,273	72,781	12,008	168,809

3.2.3 In terms of imports/exports and backloads, the following conservative assumptions and calculations have been used:

- Dedicated freight airlines (US) – 80% import/20% export
- Dedicated freight airlines (Africa) – 100% import with a 5% backload from Year 3, rising to 10% in Years 5 and 6, with an additional 5% increase added every two years
- Integrator movements – 100% outbound with a backload (import) calculation of 20% included in Years 2 and 3, rising by an additional 5% every two years
- Integrator feeders – 100% inbound (import) traffic with 10% backload possibility added to Year 5, 15% to Year 9, and 20% thereafter
- Fresh fish and spider crabs – 100% export with a backload potential of 5% from Year 3 with an additional 5% added every two years thereafter
- Middle East airlines – both import and export with backload possibilities
- Live animal operations – both in and outbound to show return journeys for most animals

- Pakistani airlines – export from Manston with backloads starting at 10% rising slowly to 30%
- Postal Services – export with a possibility of small backloads starting at 5% and rising gradually to 20%
- Russian airlines – all export from Manston with strong backload possibilities starting at 50%, rising to 70%
- Niche freight operations – generally imports with backload potential commencing at 10% rising to 30% over time
- Military movements – outbound only
- Humanitarian and medevac – outbound only

3.2.4 The freight forecast by number of tonnes and ICAO design code for imports from Manston Airport is shown in Table 4. These figures have been calculated using the same principles as for exports shown above.

*Table 4 Import tonnage by year and ICAO design code*

	Class C	Class D	Class E	Class F	Total freight inbound
<b>Y1</b>	0	0	0	0	0
<b>Y2</b>	4,462	12,269	22,121	1,014	39,865
<b>Y3</b>	5,138	13,010	27,515	1,673	47,335
<b>Y4</b>	9,092	28,932	36,071	2,231	76,326
<b>Y5</b>	9,768	28,932	40,524	2,231	81,455
<b>Y6</b>	10,444	30,943	41,402	3,042	85,832
<b>Y7</b>	14,669	31,628	42,410	3,650	92,357
<b>Y8</b>	16,021	33,411	43,289	4,259	96,979
<b>Y9</b>	17,542	33,411	43,373	4,259	98,585
<b>Y10</b>	18,218	35,194	44,330	4,867	102,609
<b>Y11</b>	18,947	36,601	46,982	5,062	107,592
<b>Y12</b>	19,705	39,254	49,812	5,264	114,034
<b>Y13</b>	20,493	40,824	51,899	5,475	118,691
<b>Y14</b>	21,510	43,742	55,003	5,694	125,949
<b>Y15</b>	22,371	46,047	58,232	6,415	133,064
<b>Y16</b>	23,266	49,278	61,673	6,672	140,889
<b>Y17</b>	24,196	51,249	64,140	6,939	146,524
<b>Y18</b>	25,164	55,427	67,908	7,771	156,271
<b>Y19</b>	26,171	57,644	70,624	8,082	162,522
<b>Y20</b>	27,218	61,576	74,750	8,405	171,949

## 4 Manston Airport passenger forecast

4.0.1 Whilst RiverOak will be focusing on the development of Manston as a freight-focused airport, passenger services will be encouraged to increase revenue potential and to provide a service to local people. The airport could provide landing slots at convenient times that are not available at other airports in the South East. Infrastructure will be developed to handle both passenger and air freight traffic, as shown in Section 5. As with Southend Airport, which grew quickly from just over 4,000 passengers per year in 2010 to over one million by 2014. Since 2014, passenger numbers have dropped to around 700,000 following the removal of one of Easyjet's four aircraft that were based at the airport<sup>8</sup>. This highlights the importance for a regional airport of an airline basing aircraft at the airport.

4.0.2 The passenger forecast for Manston has been calculated from specific airline movements and, for the charter market, an estimate of the number of movements Manston is likely to handle. Market intelligence has been used to calculate the short to medium-term forecasts, with a 4% increase, year-on-year from Years 11 to 20. The calculation used to forecast the number of passengers to be handled takes the capacity of each aircraft type and applies an average load factor of 65% for the scheduled KLM flight (gauged from previous Manston figures) and 90% for all other services, an average industry norm.

4.0.3 Specifically, the forecast shown in Table 5 includes:

- Scheduled carrier (such as KLM) operating a twice-daily service to a major hub. This equates to four movements per day, seven days per week totalling 1,456 movements per year in Years 3 to 20.
- A LCC basing two aircraft at Manston during Years 3 to 5 and three aircraft thereafter. These aircraft are forecast to operate with five daily movements during the summer months and four during the winter. LCCs account for 3,276 movements per year from Years 3 to 5 and 4,914 thereafter to Year 10. An incremental increase of 4% has been applied from Year 11 to Year 20.
- Charter flights include for one flight per day (two movements) for 12 weeks of the year and others operating five flights (10 movements) per day for five days of the week and for twenty weeks of the year. This totals 200 movements in Year 3, 240 in Year 4, and 280 from Year 5 to Year 10 with an incremental increase of 4% thereafter.
- Cruise ship flights for 26 weeks of the year commencing with one flight (two movements) per week, increasing to two flights from Year 7. This totals 52 annual movements from Years 4 to 6 and 104 from Years 7 to 10 with a 4% increase thereafter.

Table 5 shows the 20-year passenger forecast by movements and numbers for each ICAO design code of aircraft.

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<sup>8</sup> <http://www.southendairport.com/images/annualreports/LSA-AR-2016-Web.pdf>



*Table 5 Manston Airport 20-year passenger forecast*

	<b>Class C Moves</b>	<b>Class C Numbers</b>	<b>Class D Moves</b>	<b>Class D Numbers</b>	<b>Total passenger movements</b>	<b>Total passenger numbers</b>
<b>Y1</b>	0	0	0	0	0	0
<b>Y2</b>	0	0	0	0	0	0
<b>Y3</b>	4,932	662,768	0	0	4,932	662,768
<b>Y4</b>	4,972	669,572	52	10,296	5,024	679,868
<b>Y5</b>	5,012	676,376	52	10,296	5,064	686,672
<b>Y6</b>	6,650	954,999	52	10,296	6,702	965,295
<b>Y7</b>	6,650	954,999	104	20,592	6,754	975,591
<b>Y8</b>	6,650	954,999	104	20,592	6,754	975,591
<b>Y9</b>	6,650	954,999	104	20,592	6,754	975,591
<b>Y10</b>	6,650	954,999	104	20,592	6,754	975,591
<b>Y11</b>	6,858	990,171	108	21,416	6,966	1,011,587
<b>Y12</b>	7,074	1,026,749	112	22,272	7,186	1,049,022
<b>Y13</b>	7,299	1,064,791	117	23,163	7,416	1,087,954
<b>Y14</b>	7,532	1,104,354	122	24,090	7,654	1,128,444
<b>Y15</b>	7,775	1,145,500	127	25,053	7,902	1,170,553
<b>Y16</b>	8,028	1,188,291	132	26,055	8,160	1,214,347
<b>Y17</b>	8,291	1,232,794	137	27,098	8,428	1,259,892
<b>Y18</b>	8,564	1,279,078	142	28,182	8,707	1,307,259
<b>Y19</b>	8,849	1,327,212	148	29,309	8,997	1,356,521
<b>Y20</b>	9,144	1,377,272	154	30,481	9,298	1,407,753

## 5 Infrastructure requirements

5.0.1 This section presents the infrastructure forecasts that have been made by Viscount Aviation, Osprey Consulting Services and the RPS Group. The section considers the infrastructure requirements for freight, passengers, and for aviation fuel. A series of assumptions have been made in order to produce the schedule of infrastructure requirements. For example, it is assumed that the airport operator will provide direct handling services for all operations except in the case of integrators. For integrators, it is assumed that the integrator will provide handling either directly or through a contracted third party, with the integrator renting premises from the airport. It is also assumed that the airport will operate an aviation fuel farm directly buying fuel on the open market.

### 5.1 Air freight infrastructure requirements

5.1.1 Infrastructure requirements at the airport for freight include stands for aircraft, warehouse space, and parking for trucks. These requirements are linked to the forecasts shown in the previous section and are detailed by year of operation in Table 6.

**Table 6 Freight infrastructure requirements**

	Freight stands	Warehouse space m <sup>2</sup>	Truck parking
<b>Y1</b>	0	0	0
<b>Y2</b>	7	9,903	16
<b>Y3</b>	8	11,427	18
<b>Y4</b>	12	18,064	28
<b>Y5</b>	13	29,305	29
<b>Y6</b>	13	20,736	30
<b>Y7</b>	14	22,695	32
<b>Y8</b>	14	24,324	33
<b>Y9</b>	14	27,096	46
<b>Y10</b>	14	27,400	35
<b>Y11</b>	15	29,650	37
<b>Y12</b>	15	32,346	39
<b>Y13</b>	16	34,956	41
<b>Y14</b>	16	38,072	43
<b>Y15</b>	16	41,628	45
<b>Y16</b>	17	45,425	47
<b>Y17</b>	17	49,432	49
<b>Y18</b>	18	54,321	52
<b>Y19</b>	18	59,061	54
<b>Y20</b>	19	64,906	57

5.1.2 These infrastructure developments will be carried out in four building phases, which will ensure Manston Airport is prepared to meet the forecast demand. These building phases are:

- Prior to opening the airport,
- Year 4,
- Year 10, and
- Year 15.

5.1.3 There will be no traffic in Year 1, as effort will be focused on accelerated redevelopment of the airport. This traffic-free environment will allow construction to take place without the disruption from an operational airport schedule. The number of stands for freighter aircraft will increase from 8 at commencement of operations, increasing to 14, then 16, and to 19 in Year 10. Warehousing will be increased in line with these building phases.

5.1.4 The forecast shown has been annualised but mapping a daily schedule requires assumptions to be made to reflect likely arrival and departure schedules. Aircraft are unlikely to arrive and depart evenly throughout the day but tend to coincide at busy times. This means that infrastructure plans must take account of the need to handle higher than average numbers of aircraft at peak times.

## 5.2 Passenger infrastructure requirements

5.2.1 Passenger traffic infrastructure requirements include aircraft stands, terminal capacity for departures, arrivals and landside activities, and car parking. These requirements are shown by year of operation in Table 7.

5.2.2 As the forecast shows, passenger infrastructure will not be in place for the first two years of operation. This is to allow the operator to focus on air freight markets and to ensure passenger infrastructure, particularly a new terminal building, is in place before the commencement of passenger operations. Table 7 shows that operations will start with three stands for passenger aircraft, with a fourth being added in Year 15.

5.2.3 In terms of the passenger terminal, which is separated into departure, arrival and landside areas, Table 7 shows the forecast requirement for the number of passengers per hour that will need to be accommodated. The car-parking requirement is also shown in Table 7.

**Table 7 Passenger infrastructure requirements**

	Stands	Terminal capacity (pax per hour)			Car parking
		Departures	Arrivals	Landside	
Y1	0	0	0	0	0
Y2	0	0	0	0	0
Y3	3	124	31	62	1,069
Y4	3	171	43	85	1,097
Y5	3	171	43	85	1,108
Y6	3	171	43	85	1,557
Y7	3	171	43	85	1,574
Y8	3	171	43	85	1,574
Y9	3	171	43	85	1,574
Y10	3	171	43	85	1,574
Y11	3	171	43	85	1,632
Y12	3	171	43	85	1,692
Y13	3	171	43	85	1,755
Y14	3	171	43	85	1,820
Y15	4	171	43	85	1,888
Y16	4	171	43	85	1,959
Y17	4	171	43	85	2,032
Y18	4	171	43	85	2,108
Y19	4	171	43	85	2,188
Y20	4	171	43	85	2,271

5.2.4 The current parking for passenger aircraft is sufficient to allow space for three stands, which will be sufficient for operations until Year 15 when a further stand will be required. Terminal capacity provided from commencement of operations is forecast to be sufficient until at least Year 20.

### 5.3 Fuel storage and transport

5.3.1 The airport also requires fuel storage so that aircraft can refuel before departure. The volume of fuel required is calculated on the number of movements, type of aircraft, and their forecast destination. Table 8 shows the volume of fuel required to be stored at Manston Airport by year. The table also shows the forecast for delivery of fuel to the airport by road and rail, by year and per day. The forecast uses an average truckload of 38,000 litres whilst the rail forecast averages 19 containers per train carrying 43,000 litres per container. It is assumed that road transportation will be used in the early years with RiverOak investigating other options including rail and sea transportation in the longer term.

**Table 8 Fuel storage requirement**

	Volume (KLitres)	Storage (Litres)	Road delivery (38,000 litres)	Road delivery per day	Rail delivery (19x43,000 litres)	Rail delivery per day
<b>Y1</b>	0	0	0	0	0	0
<b>Y2</b>	98,457	600,000	2,591	7.10	121	0.33
<b>Y3</b>	118,904	700,000	3,129	8.57	146	0.40
<b>Y4</b>	176,859	1,000,000	4,654	12.75	216	0.59
<b>Y5</b>	181,305	1,000,000	4,771	13.07	222	0.61
<b>Y6</b>	198,072	1,100,000	5,212	14.28	242	0.66
<b>Y7</b>	189,271	1,000,000	4,981	13.65	232	0.63
<b>Y8</b>	192,141	1,000,000	5,056	13.85	235	0.64
<b>Y9</b>	192,513	1,100,000	5,066	13.88	236	0.65
<b>Y10</b>	195,197	1,100,000	5,137	14.07	239	0.65
<b>Y11</b>	201,215	1,200,000	5,295	14.51	246	0.67
<b>Y12</b>	209,209	1,200,000	5,506	15.08	256	0.70
<b>Y13</b>	217,383	1,200,000	5,721	15.67	266	0.73
<b>Y14</b>	226,024	1,300,000	5,948	16.30	277	0.76
<b>Y15</b>	235,010	1,300,000	6,184	16.94	288	0.79
<b>Y16</b>	244,356	1,400,000	6,430	17.62	299	0.82
<b>Y17</b>	254,076	1,400,000	6,686	18.32	311	0.85
<b>Y18</b>	264,185	1,500,000	6,952	19.05	323	0.89
<b>Y19</b>	274,698	1,600,000	7,229	19.81	336	0.92
<b>Y20</b>	285,620	1,600,000	7,516	20.59	350	0.96

The reduction in requirement for fuel between Years 6 and 7 reflects forecast upgrades to more efficient aircraft, including swaps from the Boeing 767 to the Airbus 330.

## 6 Conclusion

6.0.1 This report presents the forecasts for Manston Airport and establishes the rationale for retaining Manston as an airport, essential to the UK's national aviation network. Manston Airport can be operational in as little as two years from the transfer of its ownership to RiverOak. Its location, its 100 previous years of operation, and the considerable local backing mean it is without comparison in the UK. No other airport in the South East is so well supported. There will always be those who are against aviation and airport development but Manston receives the on-going support of a large number of the residents of Thanet as demonstrated in Volume I of this series of reports.

6.0.2 This report and the others in the series, show that Manston Airport is a valuable local, regional and national asset, providing airport capacity badly needed by the UK. Without additional runway capacity, the UK is losing potential trade, particularly with non-EU countries. Due to its size, location and lack of airspace constraints, Manston is the only viable option in the South East.

6.0.3 The forecasts presented in this report show that Manston Airport, in excess of the requirement for a National Strategic Infrastructure Project (NSIP), has the potential to attract and accommodate at least 10,000 cargo movements per year from the sixth year of its operation. Freight movements will increase gradually, in line with capacity, to a forecast 17,000 by Year 20. In addition, the airport will be able to handle a number of passenger flights, connecting Kent to the rest of the world. Passenger flights are expected to start in Year 3 of operation with the airport handling around 660,000 passengers, increasing to around 1.4 million by Year 20 of operation. Infrastructure requirements include stands for freighter and passenger aircraft, warehousing, a passenger terminal, and fuel storage. Construction will be undertaken in four phases to meet the forecast demand.

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**MANSTON AIRPORT:  
A NATIONAL AND REGIONAL  
AVIATION ASSET**

**VOLUME IV**  
The economic and social impacts  
of airport operations

MAY 2017

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**Disclaimer**

Whilst every effort has been made to ensure the accuracy of the material in this document, neither RiverOak Strategic Partners nor the report's author will be liable for any loss or damages incurred through the use of the report.

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## Executive Summary

This report has been produced in conjunction with three other volumes that provide an overview of why the redevelopment of Manston Airport is important to Thanet, East Kent and the southeast region. This fourth volume looks at the economic impacts of Manston Airport and the forecasts for air freight and passenger traffic that are provided in Volume III. As such, the forecast level of freight and passenger movements has been used as a base from which to predict the impacts on the economy.

### The local economy

Kent, known as the Garden of England, performs below the South East average. However, economic performance varies across the County, with some areas, particularly West Kent much more affluent than others, skewing the overall picture. Indeed, the gap between East Kent and Medway (both part of the Thames Estuary region) and the more affluent Mid- and West Kent is increasing. Thanet, in particular, has many issues associated with deprivation and ranks as the most deprived area of Kent and one of its wards, Cliftonville West, is ranked 4th out of 32,844 Lower Super Output Areas (LSOAs) in England. Thanet performs consistently behind the rest of Kent with lower wages, lower productivity, higher unemployment and low participation in Higher Education.

Kent County Council wants to address disadvantage and aim to deliver critical infrastructure that will create the conditions for economic growth across Kent, raise aspirations, and encourage businesses to invest in the County. The creation of the Thames Estuary 2050 Growth Commission and the inclusion of Thanet should serve to boost productivity, attract and retain skilled workers, and capitalise on major infrastructure works.

Thanet District Council is also working to transform the local economy and has an ambitious vision for the future of Thanet. This includes increasing participation in work, workforce skills, productivity, wages, and ultimately GVA and GPD in Thanet. Airports are renowned for their impact on local and regional economies and no other asset is likely to be able to provide the jobs and other economic benefits a fully operational Manston Airport can bring.

In terms of aviation, Kent County Council's strategy for airports was to oppose the construction of a new Thames Estuary Airport and also the second runway at Gatwick, preferring to maximise use of existing airport infrastructure. The reopening of Manston Airport appears to fit with Kent County Council's strategy. Operations at Manston Airport can provide the impetus for the improved internationalisation of Kent businesses, particularly if an enterprise zone is linked to the airport to leverage the benefits of exporting.

### Job creation

The importance of air freight operations to the creation of jobs and to increasing economic and social prosperity has been demonstrated frequently around the world. The socio-economic impacts of an airport's operations include direct, indirect, induced and catalytic effects and there are a number of formulae that can be used to calculate these impacts.

This report describes how the number of jobs created by airport operations at Manston has been forecast. Direct on-site jobs are predicted to be 2,150 by year 5, of which 697 posts are forecast to be created by the airport operator. The direct employment figure will rise with increasing freight tonnage and passenger numbers, which are detailed in

the report. By the end of year 5, the indirect and catalytic jobs forecast to result from the operation at Manston Airport are 4,515 and 8,601 respectively, and 8,970 and 17,085 by the end of year 20. The total figure for jobs created by the operations of Manston Airport is forecast at around 30,000. These figures represent a wide range of long-term opportunities for aspiring local school leavers, college graduates, and those at all stages of their careers.

Construction jobs required in the redevelopment of Manston Airport are shown separately since these are impermanent positions. Before RiverOak reopens Manston Airport, a total of eight freight stands and three passenger stands for aircraft will be constructed as well as warehousing and fuel storage to meet the forecast demand. Further construction will take place in years 4, 10, and 15 (see Volume III for details). The redevelopment project across the 15-year timeframe is forecast to require 1,475 people working years. From this figure, the number of construction workers required is forecast to be between 600 and 700. There are also likely to be additional jobs created for off-site work by local construction companies.

### **Other socio-economic benefits**

Most modern economies rely on the economic impact made by airport operations. In addition to job creation, there are numerous other benefits including:

- Training and education: Working with Higher Education (HE) and Further Education (FE), RiverOak can leverage opportunities associated with the Manston Airport's operation.
- Raising the aspirations of young people: Manston Airport can stimulate the desire to continue in education and training, encouraging young people to improve their life chances and realise their full potential.
- Connectivity: Increased connectivity improves the GDP of a region and Manston Airport would dramatically improve the connectivity of the area, which is even more essential with the advent of the UK's exit from the EU.
- Attracting inward investment: The presence of an airport supports inward investment and business location decisions.
- Tourism: Passenger services will support both inbound and outbound tourism.
- Generating wealth: GDP figures based on the airport's impact have been calculated together with the tax revenues the projected job creation is likely to produce.

### **Conclusion**

This report shows that the reopening of Manston Airport is very much in the public interest. In addition to the considerable number of direct, indirect, induced and catalytic jobs created, other socio-economic impacts that can only accrue from an airport's operation will benefit the area. The extent of these benefits adds further weight to the assertion that there is a clear need for the reopening of Manston Airport.

## Definitions and abbreviations

ACI	Airports Council International
Air freight	The carriage of goods by aircraft
Cargo	The term cargo and freight are used interchangeably in this report and refer to goods carried by road, sea or air
CPO	Compulsory Purchase Order
DCO	Development Consent Order
EU	European Union
FDI	Foreign Direct Investment
FE	Further Education
Freight	The term freight and cargo are used interchangeably in this report and refer to goods carried by road, sea or air
GDP	Gross Domestic Product
GVA	Gross Value Added
HE	Higher Education
HGV	Heavy Good Vehicle
ICT	Information and communications technology
IMD	Index of Multiple Deprivation
JIT	Just-in-time, a manufacturing system that allows materials or components to be delivered just as they are required in the manufacturing process, thereby minimising storage costs
KCC	Kent County Council
MRO	Maintenance, Repair and Overhaul of aircraft and aircraft parts
NEET	Not in education, employment or training
SME	Small and Medium-sized Enterprise
STEM	Science, technology, engineering and mathematics
TDC	Thanet District Council
UK	United Kingdom



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# 1 Introduction

## 1.1 Background and rationale

1.1.1 RiverOak Strategic Partners Ltd (RSP) has a vision to revive Manston Airport as a successful freight-focused airport with supplementary passenger operations. A Development Consent Order (DCO) will be sought by RiverOak to secure the rights and consents necessary for the airport's development as required by the Planning Act 2008. This means that, at the end of a process overseen by HM Government's Planning Inspectorate, the Secretary of State at the Department for Transport will decide whether RiverOak's application should be granted.

1.1.2 This report is the fourth in a series of documents that make the case for Manston Airport to return to full operation. These reports cover:

Volume I	The need for airport capacity in the South East of the UK and the potential role of Manston Airport as part of the UK's airport network
Volume II	The findings from a qualitative study that identifies the push and pull attractors of Manston Airport and details the opportunities and the sectoral and geographical markets the research uncovered
Volume III	The forecast for air freight and passenger traffic for Manston Airport over the first twenty years of operation
Volume IV	This report, which describes the socio-economic impacts of the operation of Manston Airport as described by the forecast in the third volume of this body of work

## 1.2 Aim and objectives

1.2.1 As a key part of the process of gaining the necessary permissions to acquire and reopen Manston as an airport, the aim of this report is to define the impact on the local and regional economies of Thanet, East Kent, and the wider Thames Estuary area. There are a number of objectives set out for this work and in particular the results will:

- Provide a forecast for the jobs created on the airport site and in the wider economy
- Set out the total jobs that are expected to be created by the airport operator
- Describe the potential economic and social impacts of Manston Airport
- Inform the statutory consultation by ensuring stakeholders have the necessary information to assess the public benefit of an operational Manston
- Continue to gain support from industry stakeholders
- Open dialogue with academic institutions from HE and FE
- Provide the information required to support the DCO application

## 1.3 Report structure

1.3.1 The report is structured as follows: First the local economies of Thanet and East Kent are described. Next, the socio-economic impacts of an airport's operations are detailed together with a description of how these impacts are forecast. The employment forecasts for Manston follow and include direct, indirect/induced and catalytic jobs as well as those created by the airport operator. The training and education opportunities associated with the airport's operation are next discussed. The penultimate section describes the other socio-economic impacts of the airport before concluding with a summary of the impacts of the airport that are in the public interest.

## 2 The local economy

2.0.1 This section describes the economies of Kent, East Kent and Thanet, providing a context by which to envision the potential impacts of operations at Manston Airport. Estimates of the possible impacts are set against the forecasts for freight and passenger traffic provided in Volume III of this series of reports.

### 2.1 The Kent economy

2.1.1 Kent, the ‘Garden of England’, has a land area of 1,368 square miles with 85% classed as green space, and over 350 miles of coastline. Figure 1 shows outline of the County, which extends from just inside the M25 to the north, Margate to the east, the Romney Marshes in the south, and Tunbridge Wells and Sevenoaks to the west. Including the unitary authority of Medway, Kent has a total population of 1,801,200 (KCC, 2016) and a workforce of around 951,000 (Oxford Economics, 2016).

Figure 1 Map of the County of Kent



Source: Google Maps

2.1.2 The County ranks 100 out of 152 county and unitary authorities in the English Indices of Deprivation 2015 (ID2015). This puts Kent towards the bottom third of the counties in England. Kent’s economy is based around small and medium-sized businesses. Table 1 illustrates Kent’s relative economic performance in the UK. It should be noted that some areas of Kent, particularly the west of the County including towns such as Tunbridge Wells and Sevenoaks, are much more affluent than East Kent, skewing the overall picture.

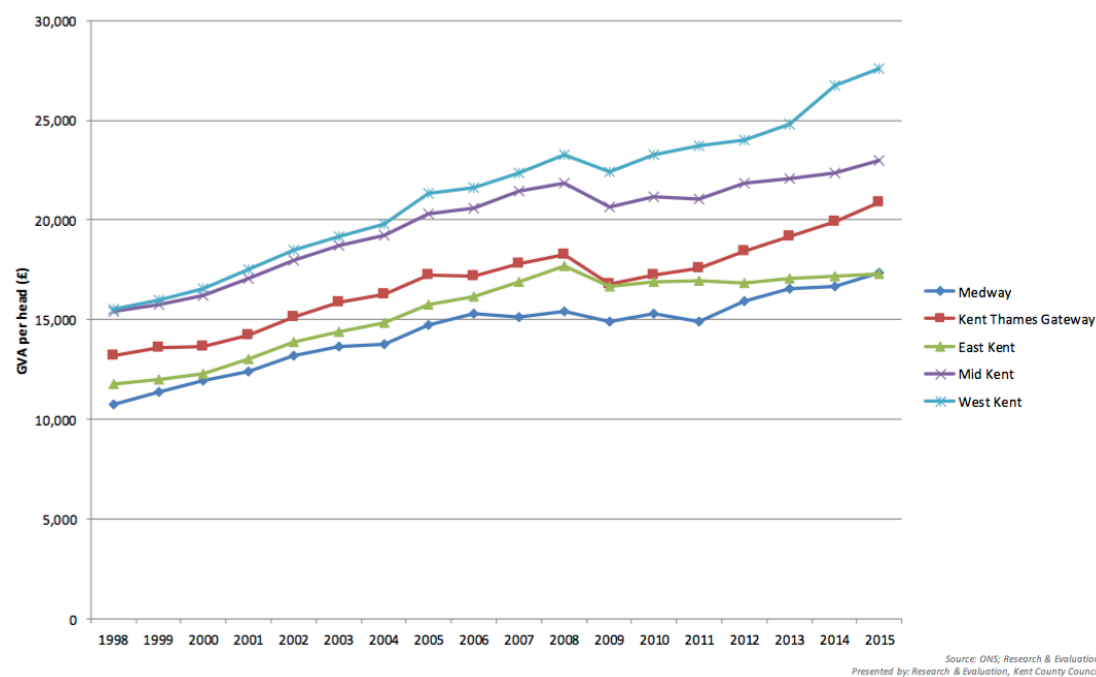
Table 1 Kent competitiveness indicators

Performance Indicator	Kent	UK	Date
Gross Value Added per head	£18,994	£24,091	2013
Gross median weekly earnings	£541.50	£520.80	2014
Economic activity	78.6%	77.4%	2015
NVQ 4 or above – working age	32.4%	36.0%	2014
Claimant unemployment rate	1.3%	1.7%	2015

Source: Kent County Council *et al*, 2015, p. 5

2.1.3 Figure 2 compares the GVA per head of population for the Kent areas including Medway (shown separately since it is a Unitary Authority), East, Mid-, and West Kent and the Kent Thames Gateway areas. The figure clearly shows that Medway and East Kent lag behind the rest of the County with the gap between East Kent and Mid- and West Kent widening over time.

**Figure 2** GVA per head in Kent and Medway by area to 2015



Source: KCC, 2017b, p. 5

### Kent's vision for the future

2.1.4 The Vision for Kent 2012-2022 (Kent Forum, 2012) outlines three main ambitions for the County:

1. To grow the economy: For Kent to be open for business with a growing and successful economy and jobs for all.
2. To tackle disadvantage: For Kent to be a county of opportunity, where aspiration rather than dependency is supported and quality of life is high for everyone.
3. To put citizens in control: For power and influence to be in the hands of local people so they are able to take responsibility for themselves, their families, and their communities.

2.1.5 These ambitions match with the operation of a successful airport in the County. Indeed, within the first of these visions - growing the economy - the Kent Forum identified their top three commitments. At this level of detail it is clear that a fully operational Manston Airport is entirely consistent with the commitments made by the leaders of the 14 Local Authorities in Kent who make up the Kent Forum. These commitments are:

1. To deliver the critical infrastructure that will create the conditions for economic growth across Kent. This means:
  - Providing access to high speed broadband that encourages economic growth in our rural areas

- Improving the strategic road networks within the county, and also those linking Kent to the rest of the UK
  - Maximising the opportunities of high speed rail and Kent's airports and ports that will reduce journey times to London and improve Kent's connectivity with London, UK and Europe
  - Improvements in integrated public transport that gives access to employment and improved workforce mobility without burdening our road networks
2. To raise the career aspirations of Kent's residents, from early years through to adulthood, and to meet those increased aspirations with a range of learning opportunities, apprenticeships and internships that meet future business need.
3. To be business friendly and the county of choice for inward investment and expansion by:
- Providing sector-specific support for business, particularly in areas of potential growth
  - Sell Kent as the place to do business, emphasising and enhancing its gateway location and natural assets
  - Offer inducements (financial and other) for inward investment and expansion
  - Maximise the amount that public sector partners procure from Kent companies and that use Kent workforce
  - Minimising the bureaucracy placed on business and champion the removal of unnecessary regulation (Kent Forum, 2012, pp. 4-5)

#### Kent's strategy for airports

2.1.6 Several documents outline Kent's strategy for airports. As detailed above, the Vision for Kent 2012-2022 (Kent Forum, 2012) includes maximising the opportunities of Kent's airports to improve Kent's connectivity. In their response to the Airports Commission consultation, Kent County Council declared the following:

*"We have engaged with the work of the Airports Commission and robustly oppose proposals for a new airport in the Thames Estuary and a second runway at Gatwick. As an alternative, Kent County Council supports better use of existing airports, including regional airports, improved surface access to airports by rail, and expansion of existing airport infrastructure (with the exception of a second runway at Gatwick, which it opposes) in order to meet the UK's aviation needs."*<sup>1</sup>

2.1.7 Kent has two main airports within the County; Manston and Lydd. Rochester Airport with its grass runways is located in the Unitary Authority of Medway, and Biggin Hill resides within the London Borough of Bromley. Kent has a number of airfields including Headcorn, Maypole, and Farthing Corner. Only Manston and Lydd airports are capable of commercial services. Unlike Manston, Lydd is constrained by a short runway (1505 metres), considerable approach issues (including MOD Hythe firing range and proximity of Dungeness Power Station), a rural location and relatively poor surface transport connectivity. Also, whilst the majority support for Manston Airport continues, between 2010 and 2014, expansion at Lydd attracted considerable criticism from stakeholders including Natural England, the RSPB, the Campaign to Protect Rural England, and local residents.

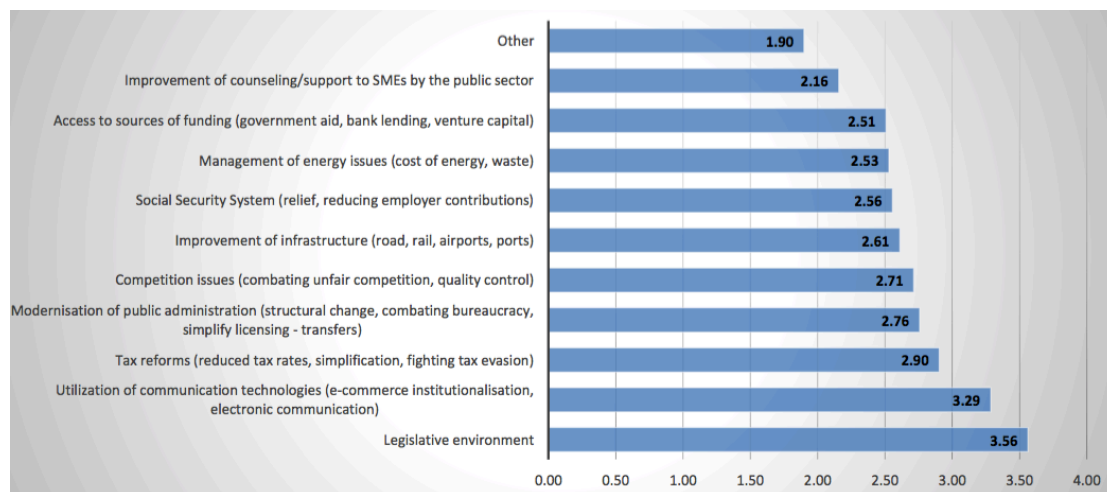
<sup>1</sup> <http://www.kent.gov.uk/about-the-council/strategies-and-policies/transport-and-highways-policies/aviation/aviation-strategy>

## Internationalisation of Kent businesses

2.1.8 A study by Dr Fragkiskos Filippaios (2017), Reader in International Business at Kent Business School, commissioned by Kent County Council, provides useful insights into the internationalisation of Kent businesses. 35% of Kent businesses export their products, with manufacturing, professional sciences, and information technology sectors having a significant number of firms that rely heavily on exports.

2.1.9 Dr Filippaios' study found that of those who do export, 85% export to the EU, 43% to the US and 21% to the UAE. 25% of the businesses in the study import, most of whom also export, with only 14% importing only. Key import markets are the EU at 72%, the US at 42% and China at 36%. The dominance of the EU for both imports and exports and uncertainty of the post Brexit regulatory environment are a cause for concern for UK businesses.

**Figure 3** External factors influencing company development



Source: Filippaios, 2017, p. 15

2.1.10 Key external factors that facilitate international trade include the legislative environment and reduction of bureaucracy. However, Dr. Filippaios' research showed that companies would prefer the government to take the role of facilitator rather than supporter as they make efforts to internationalise. Dr Filippaios describes the horizontal axis as indicating the strength of the factor, scored from one (low) to five (high), as identified by companies participating in the survey.

2.1.11 Of particular note is that Kent businesses mentioned improvements to infrastructure including airports as shown in Figure 3. In terms of support mechanisms, the research found that:

- A substantial number of support mechanisms exist, often without any significant coordination. Federation of Small Businesses, Institute of Directors and Kent Invicta Chamber of Commerce are the most recognisable ones by Kent SMEs (small and medium sized enterprises) but UK Trade and Investment (Department for International trade) and Gov.Uk emerge also as significant support mechanisms specifically for exporters.
- Despite the relatively high awareness there is little use of these support mechanisms. The diversity of mechanisms creates confusion for SMEs that do

not wish to spend substantial time in searching for the most appropriate support.

- In terms of effectiveness the general support mechanisms tend to score high in the wider population but for exporters more specialised mechanisms, such as UK Export Finance, Export Britain and Federation of Small Businesses are considered very effective. (Kent SME Internationalisation Study 2016/2017, Summary of Findings)

2.1.12 Whilst businesses in the region need to take responsibility for their excellence and ability to compete internationally, it is important to develop an international profile of the region as an attractive place for businesses and people to locate. Resumed and vastly improved operations at Manston Airport can provide the impetus for internationalisation, particularly if an enterprise zone is linked to the airport to leverage the benefits of exporting.

## 2.2 The East Kent economy

2.2.1 The term 'East Kent' is frequently used to describe an area to the southeast of the UK. However, there seems to be no formal definition of the area, with some including the Medway towns and the Isle of Sheppey. Recently, there have been moves to merge the local authorities in East Kent into a single district authority. These authorities included Canterbury, Thanet, Dover, Shepway and Ashford, corresponding approximately to the Diocese of Canterbury. However, Ashford pulled out of the plan in January 2017 and Shepway voted to reject the plan in March 2017.

2.2.2 For the purposes of this study, East Kent includes the city of Canterbury, the Isle of Thanet, and the towns of Deal, Dover, Faversham, Herne Bay, Sandwich and Whitstable as shown in orange in Figure 4. The area includes numerous historic sites including Canterbury Cathedral.

Figure 4 Map of East Kent



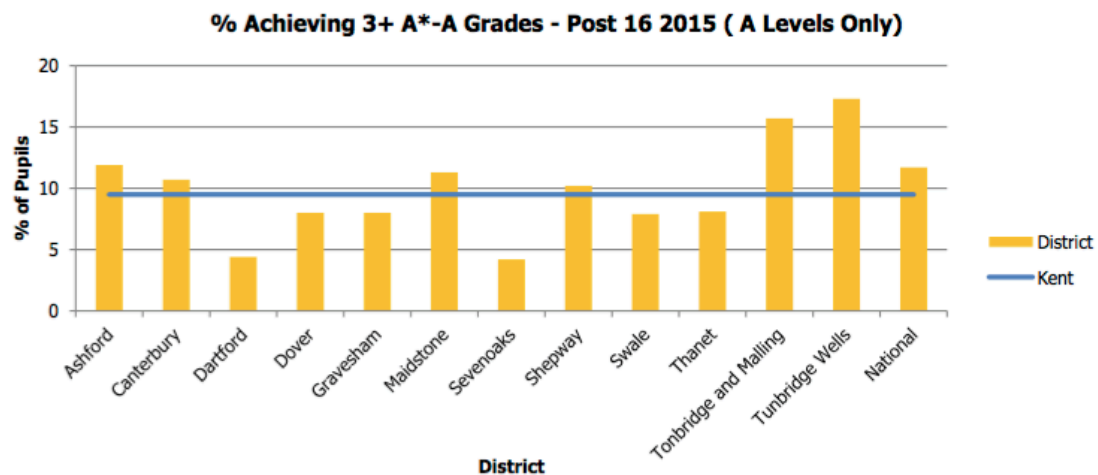
2.2.3 The 2011 Census shows that Local Authorities in the east of Kent have a total number of persons as follows:

- Ashford 117,956
- Canterbury 151,145
- Dover 111,674
- Shepway 107,969
- Swale 135,835
- Thanet 134,186

2.2.4 Whilst Kent has an average unemployment rate (March 2017) of 1.7%, East Kent and specifically Dover, Shepway, Swale and Thanet have higher rates at respectively 2.3%, 2.3%, 2.4% and 3.6%. Rates are particularly high for young people between the ages of 18 and 24. Whilst Kent ranks within the 50% least deprived of all counties and unitary authorities in England, East Kent fares less well. Indeed, Thanet continues to rank as the most deprived local authority in Kent, and Ashford and Swale have experienced the largest increase in deprivation relative to other areas (KCC, 2015).

2.2.5 In terms of post-16 educational attainment, specifically the percentage achieving three or more A\*-A grades at A Level, whilst Canterbury ranks above the Kent average, Dover, Swale and Thanet are considerably below. All areas in East Kent except Ashford are below the national level. The post-16 attainment for 2015 is shown by area and district in Figure 5. It should be noted that the Sevenoaks figure would exclude those students who took the International Baccalaureate (IB).

**Figure 5 Post-16 attainment by area and district for 2015**



Source: [http://www.kelsi.org.uk/\\_data/assets/pdf\\_file/0005/57911/Final-Booklet-2016.pdf](http://www.kelsi.org.uk/_data/assets/pdf_file/0005/57911/Final-Booklet-2016.pdf)

### 2.3 The Thanet economy

2.3.1 Thanet, the most easterly part of Kent, was once an island separated from the rest of the County by the Wantsum Channel. The Channel was originally around two miles wide but has narrowed to a stream over the millennia. Thanet includes the towns of Broadstairs, Margate and Ramsgate as shown in Figure 6.

2.3.2 Thanet has good rail and road connections: The high-speed rail link, HS1, passes through Canterbury and Ashford en route to St Pancras taking about one hour and 15 minutes. This train passes close to the Manston site. There is also a route via the coastal and Medway towns to St Pancras taking about one hour and 40 minutes. There is also a service from Thanet via the coastal towns, Chatham and north Kent to London Victoria,



which takes around two hours. Road access to the M2 is via the Thanet Way, which is a dual carriageway.

**Figure 6** Map of Thanet



Source: Google Maps

2.3.3 Thanet benefits from a number of blue flag beaches and historic landmarks. The area is noted for its connections to Charles Dickens and JMW Turner, who is the namesake of the Turner Contemporary gallery on the sea wall in Margate. Thanet has an out-of-town shopping and entertainment centre at Westwood Cross near Broadstairs.

2.3.4 The 2011 Census from the Office for National Statistics shows that Thanet has a population of 134,186. By 2020, this figure is predicted to be around 140,000 with a workforce of 79,100 (Oxford Economics, 2016).

#### Deprivation and unemployment

2.3.5 The Isle of Thanet has particular problems associated with deprivation including relatively high unemployment, low wages and low participation in HE. As described previously, Thanet continues to rank as the most deprived local authority in Kent (KCC, 2015). Indeed, figures published by the Department of Communities and Local Government ranked Thanet as the 28<sup>th</sup> (out of 326) most deprived area in England in 2015, the second poorest local authority area in the South East, and the poorest in Kent.

2.3.6 Thanet's ranking has deteriorated from 49<sup>th</sup> to 28<sup>th</sup> since 2010, showing a worsening of its deprivation relative to other areas in England. These figures are based on the Index of Multiple Deprivation (IMD), which include income; employment; health and disability; education, skills and training; barriers to housing and services; living environment; and crime. Within Thanet, the Cliftonville West ward is ranked 4<sup>th</sup> out of 32,844 Lower Super Output Areas (LSOAs) in England placing it within England's most deprived 1%. In terms of LSOAs, Margate Central ranks 21<sup>st</sup>.

2.3.7 Unemployment in Thanet is higher than the other East Kent districts, Kent as a whole and the South East, as shown in Table 2. The employment rate is lower in Thanet than in the South East and Great Britain. For the year to March 2016, figures from the Annual Population Survey shows that Thanet's employment rate was 54.5% compared to 62.4% in the South East and 60.0% in Great Britain.

*Table 2 Comparative unemployment in Thanet*

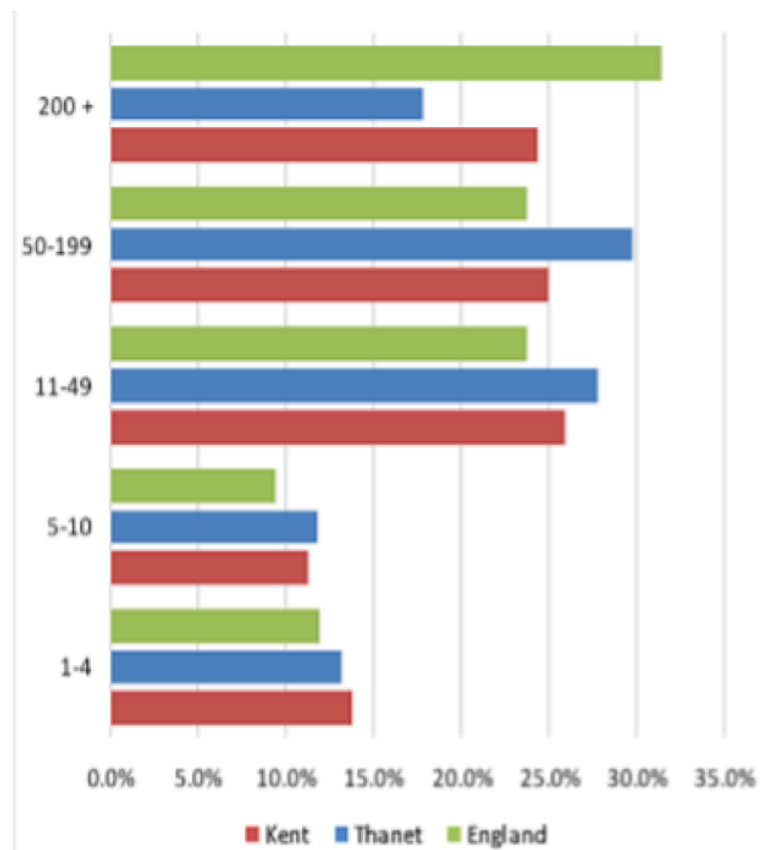
	March 2017		Since Feb 2017	Since March 2016
	Unemployed	% of workforce	%	%
Thanet District	2,920	3.6%	+1.6%	+4.1%
Dover District	1,555	2.3%	+4.4%	+13.5%
Canterbury	1,350	1.3%	+0.4%	+8.4%
Shepway	1,480	2.3%	+2.4%	+6.1%
Kent	16,085	1.7%	+2.6%	+6.9%
Great Britain	789,470	2.0%	+2.2%	+3.3%

Source: KCC, 2017a

*Employment and productivity*

2.3.8 Thanet has fewer large firms (employing more than 200 people) than Kent and England. Indeed, the Thanet economy is dominated by small firms (TDC, 2016, p. 8) as shown in Figure 7.

*Figure 7 Employment by size of firm*



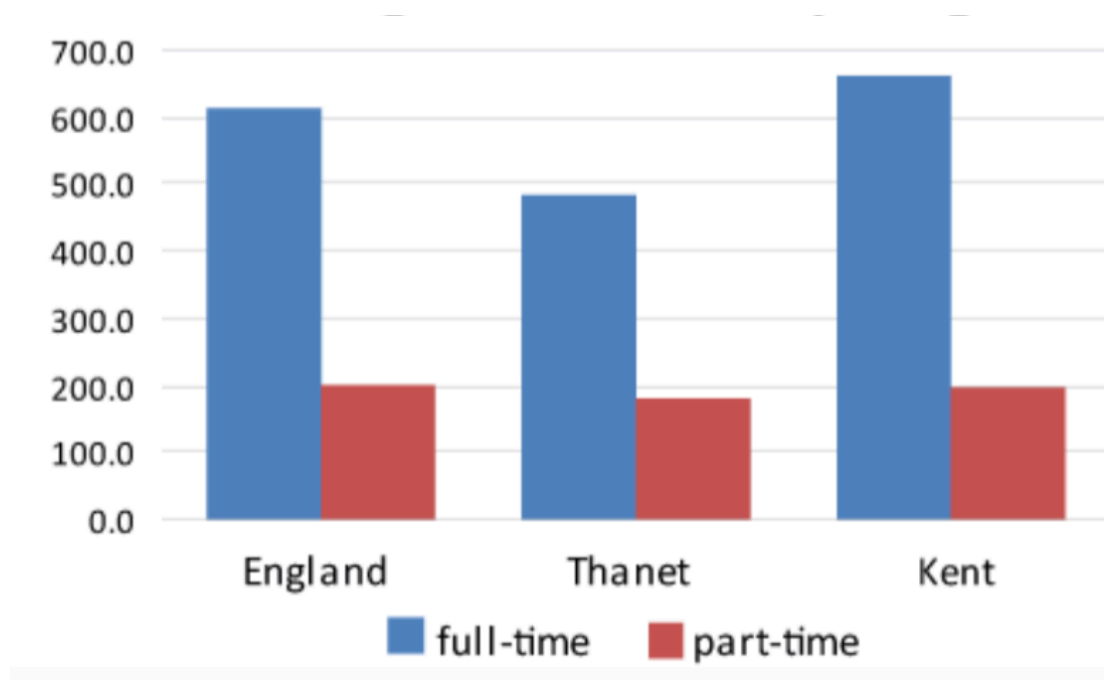
Source: Thanet District Council, undated, p. 7

2.3.9 Productivity in Thanet is around 80% that of the Kent average and will need to grow at 3.5% per annum until 2031 to reach this county average (TDC, 2016, p. 16). The link between productivity and wages means that organisations will have to step up their

productivity if wage levels are to rise sufficiently to increase the quality of life within the District. Indeed, in 2016, GVA per capita in Thanet was only 63% of the County average and closing this gap will necessitate growth at a rate of 5.2% per annum to 2031 (TDC, 2016, p. 16).

2.3.10 Wages in Thanet are lower than both the England and Kent averages for both full-time and part-time workers as shown in Figure 8.

**Figure 8** Average gross weekly wage in Kent and Thanet



Source: Thanet District Council, undated, p. 6

**Economic growth strategy for Thanet**

2.3.11 The Draft Economic Growth Strategy for Thanet (TDC, 2016) describes the local economy:

*“Thanet has a distinctive local economy with substantial opportunities for sustainable and high quality economic growth. Particularly with HS1 in place, Thanet now has significant locational advantages deriving from its proximity to both London and continental Europe. It has outstanding cultural assets, epitomised particularly through the Turner Contemporary. It has a very high quality natural environment, especially its coastline.*

*Looking ahead, there is real potential linked to the port and historic marina at Ramsgate and emerging opportunities in the fields of advanced manufacturing, agri-tech and the creative sector. While there are some challenges – relating particularly to the creation of jobs locally and workforce skills – the opportunities are real ones, particularly in the wider context of significant planned housing and population growth.” (TDC, 2016, p. 1)*

2.3.12 However, Thanet continues to face many challenges as the Council says in its Economic Growth Strategy (TDC, 2016):

*“The skills profile could be strengthened; too many jobs are “low wage” and part time in character; and the number of jobs within the District needs to grow. There is also a need to diversify the business base so it is less reliant on ‘public sector’ type roles (36% in health, education and public administration).*

*However, Thanet is full of ambition and confidence. A great deal has been achieved over recent years and much more can be accomplished through the delivery of a forward looking and focused Economic Growth Strategy.”*

2.3.13 Thanet has benefited from EU funding under a number of programmes including the European Regional Development Fund. Access to this funding for deprived areas will be lost when the UK exits the EU, rendering Thanet more reliant on private sector investment to ensure the creation of high quality jobs. The reopening of Manston Airport would provide economic growth for Thanet and the UK in activities currently and increasingly being diverted to airports in mainland Europe. An operational Manston Airport would provide jobs in an area of high unemployment, with knock-on educational, training, and social benefits.

#### The Thames Estuary 2050 Growth Commission

2.3.14 In the 2016 budget, the Chancellor of Exchequer announced a new Thames Estuary 2050 Growth Commission. Unlike its predecessor, the Thames Gateway project, which excluded East Kent, this initiative includes 40-miles of the Thames Estuary from Canary Wharf to Southend on the north side and Thanet on the south as shown in Figure 9. The Thames Estuary region has a population of more than three million people and in Kent covers the areas of Canterbury, Dartford, Gravesham, Medway, Swale and Thanet.

Figure 9 Map of the Thames Estuary 2050 area



Source: <https://www.gov.uk/government/news/lord-heseltine-thames-estuary-plan-to-unleash-growth-for-decades-to-come>

2.3.15 The aim of the Commission is to boost productivity, attract and retain skilled workers, and capitalise on major infrastructure works. In his budget statement, The Chancellor of the Exchequer said:

*“The Commission will develop an ambitious vision and delivery plan for North Kent, South Essex and East London up to 2050. This will focus on supporting*

*the development of high productivity clusters in specific locations. It will examine how the area can develop, attract and retain skilled workers. It will also look at how to make the most of opportunities from planned infrastructure such as the Lower Thames Crossing. It will report back in Autumn Statement 2017 with a clear and affordable delivery plan for achieving this vision.” (HM Treasury, 2016, para 6.21)*

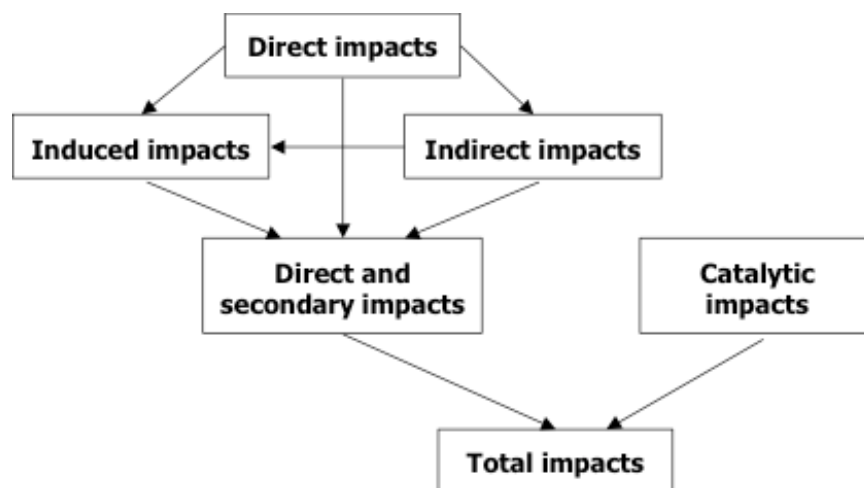
### 3 The economic and social impacts of airports

3.0.1 This section describes the impact airports make on their local, regional and national economies. These are usually measured in terms of employment, income, and contribution to GDP.

#### 3.1 Types of impact made by airports

3.1.1 There are four types of impact that airports make on economies. These are direct, indirect and induced (secondary impacts), and catalytic, as shown Figure 10.

Figure 10 The economic impact of airports



Source: Graham, 2001, p. 185

3.1.2 **Direct** impacts are those associated with the operation and management of activities at the airport. This includes the impact made by the airport operator as well as other airport-related businesses located elsewhere on or near the airport site. These other businesses include airlines, general aviation, handling agents, airport security, immigration and customs, retail and food concessions, aircraft maintenance, and a range of other activities at the airport.

3.1.3 **Indirect** impacts are the impacts made by the supply chain and includes organisations such as wholesalers providing food for in-flight catering, aviation fuel supply, travel agents, cleaning and maintenance contractors, construction, and accounting and legal services.

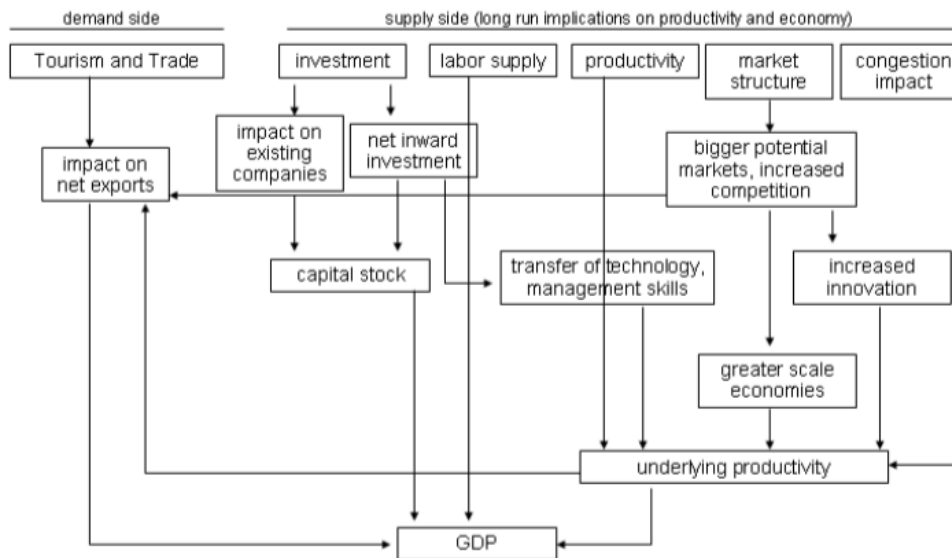
3.1.4 The **Induced** category covers the impacts created directly or indirectly as a result of those connected to the airport spending their income in the local or national economy. Induced impacts therefore include the operations of a wide range of organisations such as retail, entertainment, hospitality, childcare, health care, building and home renovations for example.

3.1.5 **Catalytic** impacts, also known as Wider Economic Benefits, are associated with the aviation sector. Air transportation facilitates employment and economic development in the local and national economy. For example, air transport contributes to tourism and therefore impacts tourist spending in the economy. Air transport also impacts trade, facilitating the import and export of goods by air and therefore their manufacture and distribution, as well as productivity. Air transport also positively

impacts location and business decisions by other organisations and stimulates innovation, thereby having a long run impact on productivity and GDP.

3.1.6 The catalytic effects of air transportation, as shown in Figure 11, include the impact on the supply chain through the creation of larger potential markets and increased competition, technology transfer, increased innovation, and upskilling of the workforce. For freight-focused airports, inbound air cargo provides businesses that rely on fast delivery (such as airlines, oil rig maintenance, etc.) with a reliable transportation mode for high-value equipment, machinery and spare parts. Air transportation also supports Just-in-Time practices, particularly for high value to weight goods with short product lifecycles (Ishutkina, 2009) such as electronic equipment. Businesses involved with perishable goods of all types, including not just electronic components but agricultural products such as flowers, fruit and some vegetables, are enabled by their use of air transportation.

**Figure 11** Economic catalytic impacts of air transport



Source: Ishutkina, 2009, p. 40

## 3.2 Connectivity

3.2.1 The Airports Council International (ACI) draws attention to the growing link between connectivity and economic growth. They say:

*“Alongside the virtual connectivity afforded by the internet and the digital revolution, **aviation is the prime and unsurpassed enabler that connects the people, places and products of the real world.** This means that trade, tourism, foreign investment and increased productivity are all closely related to the level of air connectivity. (ACI, 2015, p. 1, bold from the original).*

3.2.2 Indeed, and of particular relevance to the UK post Brexit, ACI continues:

*“For Europe, air connectivity is of an even greater strategic relevance. The past decades have seen a gradual shift occurring in the global economy, with new economic powerhouses moving the pillars of trade eastwards. Europe will not be able to avoid this shift, but we can still ensure that we remain closely connected to the new potential sources of prosperity.” (ibid, p. 1)*

3.2.3 Many studies have shown how airports specifically impact on their local, regional and national economies. For example, Intervistas found a 10% increase in a country's air connectivity to be associated with a 0.5% increase in GDP per capita (Intervistas, 2015, p. XIII). Steer Davies Gleave report the multiplier effect of airports on GVA to be 3.66, meaning that a £1 increase in aviation GVA translates to £3.66 in GVA for the UK economy (Steer Davies Gleave, 2010, p. 105).

### 3.3 Location and investment decisions

3.3.1 The presence of an airport encourages large employers to locate nearby. Bel and Fageda (2008) found a 10% increase in the supply of air services at an airport was associated with a 4% increase in the number of large firms headquartered nearby. Arndt *et al* (2009) found air connectivity to be one of the four most important factors affecting location decisions. IATA (2006) report that 30% of Chinese firms changed investment decisions due to constraints on air services.

3.3.2 Airports are also linked to increases in business investment and Foreign Direct Investment (FDI). Cooper and Smith (2005, p. 36) found that a 10% increase in air transportation usage increases business investment by 1.6%. PWC (2013) found that a 1% increase in international seat capacity was associated with a 0.47% increase in FDI inbound and a 0.19% increase in FDI outbound and that a 10% change in the growth rate of seat capacity in the UK leads to approximately a 1% change in the growth rate of the UK's GDP.

3.3.3 Indeed, the economic impact made by airports is a vital component of modern economies. However, an airport's relationship with the economy in which it operates is interdependent and an airport's activity depends on economic factors in that economy. Indeed, air travel is driven by a number of factors including:

- GDP, disposable income, and living standards;
- Reducing air travel costs;
- Globalisation; and
- Deregulation



## 4 Calculating jobs created by airport activities

4.0.1 This section describes macro and micro level methods for forecasting the number of jobs created by airport operations.

### 4.1 Macro level forecasts

4.1.1 The formulae used for macro level forecasts for airport job creation are derived by amalgamating figures from numerous airport examples. As such, they can also be described as ‘top down’ forecasts since they are not specific to a particular airport but are the result of observing airports in a wide area (such as the UK, Europe, or globally). By contrast, a ‘bottom up’ approach would consider an individual airport and derive a forecast specifically for that example. Both approaches have been used in this report.

4.1.2 The most widely used macro-level estimate for direct jobs created at airports is the formula one million passengers or 100,000 tonnes of freight corresponds to 950 jobs (Thanet District Council, 2013, p. 2). Other studies use somewhat different multipliers. For example, an ACI European study (2015) shows that 1,200 direct jobs are created for the first one million passengers and 0.95 jobs per 1,000 extra passengers thereafter. Intervistas found that for large airports, each additional one million passengers created 865 extra jobs (Intervistas, 2015, p. 71).

4.1.3 A study by Steer Davis Gleave (2015) for the EU Commission, which encompassed airports across Europe, found the ratio between direct employment and passengers to be one job per 1,240 passengers. However, the Steer Davis Gleave (2015) study notes that smaller airports are less efficient than larger airports in terms of the ratio between passengers and employment. This is because there are minimum levels of employment needed to provide a complete airport service and economies of scale are not realised to the same extent as they are with large airports. This may mean that the forecast employment figures for Manston could be higher than those calculated by their ratio.

4.1.4 A review of the ‘East Midlands Airport Sustainable Development Plan: Economy and surface access’ found that for 309,000 tonnes of cargo and 4.5 million passengers (East Midlands Airport, 2015, p. 2), 6,730 people (*ibid*, p. 5) were employed on the airport site. This is a ratio of one million passengers or 100,000 tonnes of freight to 887 direct jobs.

4.1.5 York Aviation, in a study for the Airports Council International (ACI) in 2004 provides estimates for indirect and induced jobs. They say:

*“On the basis of the evidence we estimate that, on average, for every 1,000 on-site jobs supported by European airports there are around 2,100 indirect/induced jobs supported sub-regionally. Given that there are 950 on-site jobs created per million passengers, once we factor in the direct, indirect and induced jobs, we concluded that for every million passengers (workload units), European airports support around:*

- *2,950 jobs nationally;*
- *2,000 jobs regionally; or*
- *1,425 jobs sub-regionally.”* (York Aviation, 2004, p. 9)

4.1.6 The ACI European study (2015) study confirms that for every million passengers (workload units), European airports create around 2,100 indirect and induced jobs nationally.

4.1.7 In terms of catalytic impacts, ICAO (2000, p. 2) suggests that:

*“In the global economy, every \$100 of output produced and every 100 jobs generated by air transport trigger additional demand of some \$325 and 610 jobs in other industries.”*

## 4.2 Macro level calculations for Manston Airport

4.2.1 To summarise, the following estimates of the relationship between direct employment and one million passengers/100,000 tonnes of freight moved through airports has been shown to be:

- 1,200 jobs (ACI-Europe, 2015)
- 950 jobs (Thanet District Council, 2013, York Aviation, 2004)
- 887 jobs (East Midlands Airport)
- 865 jobs at large airports (Intervistas, 2015)
- 806 jobs (Steer Davis Gleave, 2015)

4.2.2 These figures are wide ranging; between 806 and 1,200. Given the East Midlands figure is a ratio for a UK airport with a freight focus, this figure has been used to estimate direct jobs for Manston Airport.

4.2.3 The indirect/induced and catalytic jobs derive from the work by ACI Europe and ICAO. In summary, the calculations used to estimate the number of direct, indirect/induced, and catalytic jobs at Manston Airport are:

- 887 direct jobs per one million passengers or 100,000 tonnes of freight (East Midlands Airport figures)
- 2,100 indirect/induced jobs for every 1,000 direct jobs (ACI Europe, 2015)
- 4,000 catalytic jobs (6,100 less 2,100) per 1,000 direct jobs (ICAO, 2000)

4.2.4 Table 3 in Section 5.1 shows the results of using these calculations as estimates for the potential job creation at Manston.

## 4.3 Micro level forecasting of airport operator jobs at Manston Airport

4.3.1 As previously described, the employment created by the operation of an airport include direct, indirect, induced and catalytic jobs. Direct jobs include employment by the airport operator, airlines, general aviation, handling agents, airport security, immigration and customs, retail and food concessions, and aircraft maintenance.

4.3.2 Those jobs where the employee is in the direct employ of the airport operator are only a proportion of total direct jobs that will result from operations at Manston Airport. Indeed, in Europe, direct jobs at airports generally breakdown as follows (Intervistas, 2015, p. 27 – percentage does not add to 100 due to rounding):

- |  |     |
|--|-----|
| • Airlines                                 | 28% |
| • Ground handling                          | 14% |
| • Airport and Air Traffic Control          | 14% |
| • Retail and other in-terminal services    | 6%  |
| • Airport security and passenger screening | 6%  |

- Customs, immigration and government jobs 5%
- Ground transport 5%
- Food and beverage 8%
- Maintenance, Repair and Overhaul (MRO) 6%
- Other 7%

4.3.3 However, in order to provide a forecast specific to Manston, a bottom up calculation or micro level evaluation has been made by Viscount Aviation. These figures are for jobs where the employee is in the direct employ of the airport operator and form part of the total direct jobs shown in Table 3. The airport operator employee figures have been calculated based on previous experience with similar operations at Manston and other airports. They have not been extrapolated from the figures shown in Table 3.

4.3.4 The number of jobs the Manston Airport operator is forecast to employ are shown in Table 4 in Section 5.2 by job function for years one to twenty.

## 5 Employment forecasts

5.0.1 The causality between air traffic and economic development is well established and the previous section has indicated the extent to which airports are employment generators. For example, in written evidence to the Transport Select Committee (AS 70), the Royal Town Planning Institute says:

*“Airports are hugely important to the areas in which they are located, for example Heathrow Airport is a major employment generator in outer west London and is integral to the local economy. Similarly smaller regional airports can also be vital to local economies.” (1.2)*

### 5.1 Forecast job creation resulting from operations at Manston Airport

5.1.1 Table 3 shows the result of applying the forecast calculations defined previously in Section 4.2. The table shows the freight tonnage and passenger numbers that were used in the calculation (see Volume III for further information), from the first to twentieth years of operation. The table defines jobs as direct, indirect/induced, and catalytic, as previously described in Section 3.1.

**Table 3 Forecast job creation**

	Freight tonnage	Passenger numbers	Direct jobs	Indirect/induced jobs	Catalytic jobs	Total job creation
Y1	0	0	116	0	0	116
Y2	96,553	0	856	1,798	0	2,655
Y3	108,553	662,768	1,551	3,257	6,203	11,010
Y4	167,092	679,868	2,085	4,379	8,341	14,805
Y5	173,741	686,672	2,150	4,515	8,601	15,266
Y6	181,436	965,295	2,466	5,178	9,862	17,505
Y7	192,908	975,591	2,576	5,411	10,306	18,293
Y8	200,673	975,591	2,645	5,555	10,581	18,782
Y9	203,245	975,591	2,668	5,603	10,673	18,944
Y10	212,351	975,591	2,749	5,773	10,996	19,517
Y11	222,377	1,011,587	2,870	6,027	11,479	20,375
Y12	234,508	1,049,022	3,011	6,322	12,042	21,375
Y13	244,690	1,087,954	3,135	6,584	12,542	22,261
Y14	256,989	1,128,444	3,280	6,889	13,122	23,291
Y15	270,579	1,170,553	3,438	7,220	13,753	24,412
Y16	283,904	1,214,347	3,595	7,550	14,381	25,527
Y17	296,594	1,259,892	3,748	7,871	14,993	26,613
Y18	312,344	1,307,259	3,930	8,253	15,720	27,903
Y19	324,838	1,356,521	4,085	8,578	16,338	29,000
Y20	340,758	1,407,753	4,271	8,970	17,085	30,326

5.1.2 In addition to the calculations applied, a forecast of 116 direct jobs has been included in Year 1. The actual employment figure will be in the region of 464 in the fourth quarter of the year and has been annualised. This figure indicates employment by the airport operator in advance of commencement of operations. This is expected to

take place towards the end of the year to allow for the recruitment process and training to take place before the start of operations. In order to remain conservative, the forecast postpones the creation of any catalytic jobs until year 3 of the operation to allow the impact of the airport to take effect.

5.1.3 The figures shown in this section outline, using a macro level method, the estimated overall number of direct jobs created by the presence of an operational airport at Manston. The following section considers the proportion of employment created by the airport operator only and uses the micro level method described.

## 5.2 Forecast number and type of jobs by the airport operator

5.2.1 Table 4 shows the estimated number of jobs at Manston Airport by job function (calculated as described in Section 4.3. Job opportunities in the direct employ of the airport operator will include a wide range of positions including:

- Passenger services (pax)
- Freight services (Frei't)
- Air Traffic Services (ATS)
- Rescue and Fire Fighting Services (RFFS)
- Airport operations (Ops)
- Maintenance (Maint)
- Motor Transport (MT)
- Site and freight security (Sec)
- Administration (Adm)

**Table 4 Estimated job creation by the Manston Airport operator by function**

	Pax	Frei't	ATS	RFFS	Ops	Maint	MT	Sec	Adm	Total
Y1	0	49	6	14	6	8	8	11	14	116
Y2	0	196	25	57	24	31	31	45	14	423
Y3	99	215	25	57	29	38	38	55	15	571
Y4	102	302	25	57	31	41	41	59	15	673
Y5	103	322	25	57	32	41	41	60	16	697
Y6	145	256	25	57	33	43	43	62	16	680
Y7	146	288	25	57	33	43	43	63	16	714
Y8	146	307	25	57	33	43	43	63	16	733
Y9	146	357	25	57	34	44	44	64	16	787
Y10	146	331	25	57	34	44	44	64	16	761
Y11	152	347	25	57	34	44	44	64	16	783
Y12	157	361	25	57	34	45	45	65	16	805
Y13	163	376	25	57	35	45	45	66	16	828
Y14	169	391	25	57	35	46	46	67	16	852
Y15	176	413	25	57	36	46	46	68	16	883
Y16	182	430	25	57	36	47	47	68	16	908
Y17	189	447	25	57	36	47	47	69	16	933
Y18	196	469	25	57	37	48	48	70	17	967
Y19	203	488	25	57	37	48	48	71	17	994
Y20	211	507	25	57	38	49	49	71	17	1,024

Source: Figures calculated by Viscount Aviation, March 2017

5.2.2 The figures include an estimate of recruitment ahead of operations commencing in Year 2. The headcount for Year 1 is an annualised figure and the forecast is for four times the number shown, all employed in the fourth quarter only. The headings shown in Table 4 refer to jobs including:

5.2.3 In terms of shift numbers, an assumption has been made that 35% of the total number of staff on the airport's payroll would be on duty during peak daily operations. Most operational staff would be rostered in 12-hour shifts once airport operations commence. Shift changes would be likely to be at 07.00 and 19.00 hours. In terms of the daily staffing pattern, shifts would generally be four days on and three off, then three on and four off, allowing for an average 42-hour working week.

### 5.3 Construction jobs

5.3.1 It should be noted that the forecasts shown in Table 3 and Table 4 do not include construction jobs required to redevelop the airport. RiverOak's plans are for eight freight stands and three passenger stands for aircraft to be constructed prior to commencement of operations. Warehousing and fuel storage will also be constructed to meet the forecast demand. Further construction work will take place in years 4, 10, and 15 (see Volume III for details) as the number of aircraft movements increase. As with house building, these types of construction jobs are not permanent and as such have not been included in the previous forecasts but are shown here separately.

5.3.2 In order to predict the number of construction jobs required to meet the redevelopment specifications, comparisons with similar projects (i.e. with an annual turnover of between £30 to £40 million per annum) have been made. The forecast derived from these comparisons for the four construction phases, has been calculated by the RPS Group<sup>2</sup> on behalf of RiverOak, and is as follows:

- Average number of workers on site at any time 210
- Peak time is likely to be three times the average figure 630
- Total equivalent people working years over the whole project 1,475

5.3.3 It should be noted that the redevelopment project has been planned in four discontinuous phases. Therefore, construction jobs will be recreated at each phase, in years 4, 10 and 15, which are likely to be 2024, 2030 and 2035. The total on-site construction figure of between 600 and 700 jobs, as shown above, does not include the effect on the local supply chain or the number of jobs created off-site by local construction companies.

### 5.4 Other direct jobs

5.4.1 In the case of Manston Airport, it is expected that TG Aviation will return to the site, bringing a total of around 21 full-time, part-time and freelance/consultancy jobs. These roles include engineering, flying instruction and administration. Before having to leave Manston, TG Aviation were expanding the engineering side of their business, building on a great reputation built up over many years. However, the company has raised concerns about the availability of local qualified engineers, vital if they are to be able to grow the company. They believe an engineering training facility at Manston would address this problem.

5.4.2 RiverOak expect to attract a major aircraft recycling operation to Manston and this would increase the employment opportunities on-site. Airbus has around 7,000

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<sup>2</sup> <http://www.rpsgroup.com>

aircraft in operation and Boeing 12,000 including both commercial passenger airliners and freighters<sup>3</sup>. Aircraft have around 25 years of use before being taken out of service, generally due to excessive operational costs, high fuel consumption, legislative demands requiring expensive technology upgrades, and difficulties in obtaining spare parts. Figures suggest that around 14,000 aircraft are due to retire in the next 20 years<sup>4</sup>.

5.4.3 As discussed in Volume III of this series of reports, an estimate of 10 aircraft per year are forecast to be recycled at Manston. Not only will this put a considerable amount into the local economy, it is also likely to create a significant number of jobs, particularly in engineering.

5.4.4 Additionally there is the opportunity to locate a Maintenance, Repair and Overhaul (MRO) facility at Manston. MRO services are carried out on civil and military aircraft with airlines generating around 68% of MRO providers' revenue<sup>5</sup>. Almost \$100 billion is spent on aircraft MRO annually with Europe taking 28% of the market (Strair, 2005). The industry continues to expand, stimulated by demand for passenger transport. Aircraft fleets are also ageing due to reduced orders during the financial crisis, and older aircraft generally require higher levels of MRO services. A successful MRO operation at Manston would generate a number of skilled job opportunities.

5.4.5 Should the government decide to give Manston Enterprise Zone status (see TDC, 2016, p. 9), it is likely that business would be stimulated in the area, creating more employment opportunities.

5.4.6 Micro level forecasts for direct employment other than by the airport operator have not been made. These figures form part of the macro level forecasts and are shown here to provide Manston-specific indications of the types of employment that might be generated.

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<sup>3</sup> [http://cordis.europa.eu/result/rcn/164345\\_es.html](http://cordis.europa.eu/result/rcn/164345_es.html)

<sup>4</sup> [http://ec.europa.eu/environment/life/publications/lifepublications/flippingbook/jobs\\_skills/files/assets/basic-html/page14.html](http://ec.europa.eu/environment/life/publications/lifepublications/flippingbook/jobs_skills/files/assets/basic-html/page14.html)

<sup>5</sup> <https://www.ibisworld.co.uk/market-research/aircraft-repair-maintenance-overhaul.html>

## 6 Training and education

6.0.1 One of the key challenges identified in the Thanet Economic Growth Strategy (TDC, 2016, p. 7) is the need to invest in workforce skills. As such, it will be imperative for local government to work with the airport operator to ensure local people are given the skills, training, and education necessary for them to fulfil their potential and take advantage of the employment opportunities at the airport and in the supply chain. As a study by York Aviation says:

*“Airports are major centres of employment generating a demand for a wide range of skills. This means that airports can contribute significantly to the training and skill development of the labour force of their catchment areas.”*  
(York Aviation, 2004, p. 28)

### 6.1 Skills shortages

6.1.1 For many years there has been discussion about skills shortages in the UK workforce and the significant impact this makes on business. Between 2013 and 2015, the number of skill-shortage vacancies rose by 43%<sup>6</sup>. This was particularly noticeable in the field of engineering<sup>7</sup>. Additionally, poor careers advice in the UK is causing students to drop out of school, college and apprenticeships<sup>8</sup>.

6.1.2 In terms of the EU’s strategy for aviation, the Commission says:

*“It is [also] crucial to maintain leadership in aviation through a highly educated, qualified and experienced workforce. Partnerships between research, universities and industry on education will facilitate the movement of experts between these sectors, which at the end would be very beneficial for the development of the European aviation sector.*

*New skills and competences, some of which are not yet broadly available, such as those of drone specialists and flight data analysts will have to be developed. Training should be given priority. In this respect, the European Aviation Safety Agency Virtual Academy will further develop a true European network of aviation training institutes.* (European Commission, 2015)

6.1.3 In Thanet, the working age population:

*“is less well qualified than across Kent and the South East as a whole. Of its population aged 16-64, 10% have no qualifications, figures, which are lower than Kent and the South East. The proportion of the Thanet working age population holding each respective qualification level is lower than the two other comparator areas. This situation is most acute for the highest qualification level: NVQ4+.”* (TDC, 2016, p. A-2)

6.1.4 The vision for Thanet is to improve workforce skills so that productivity, employment rates and wages grow in line with those of Kent generally (TDC, 2016, p.

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<sup>6</sup> Employer Skills Survey 2015, p. 4 available from:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/499047/UKES\\_Summary\\_report\\_-\\_for\\_web.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/499047/UKES_Summary_report_-_for_web.pdf)

<sup>7</sup> <http://www.huffingtonpost.co.uk/news/skills-shortage/>

<sup>8</sup> <http://www.bbc.co.uk/news/education-31061905> and

<http://www.huffingtonpost.co.uk/news/skills-shortage/>



16). In particular, the proportion of the working aged population qualified to at least degree level, currently 10% lower in Thanet than the County-wide figure, will need to increase.

## 6.2 Further and Higher Education in East Kent

6.2.1 FE and HE make huge impacts on the lives of individuals by improving life chances and opportunities, the economy through skills, innovation and stimulating inward investment, and to society generally by increasing knowledge, social mobility and cohesion. Numerous studies attest to the contribution of the education sector to economic activity, GDP and employment opportunities. For example, Canterbury City Council (2015, p. 54) estimates the economic impact of the University of Kent and Canterbury Christ Church University at over £1.1 billion per annum. Indeed, universities employ one in every eight of the Canterbury district's employees (Canterbury City Council, 2016, p. 28).

6.2.2 Other providers in the area include:

- East Kent College
- Canterbury College
- Hadlow College
- Hilderstone College, English Studies Centre, Broadstairs
- The University for the Creative Arts

6.2.3 Whilst both FE and HE are not part of the statutory education system, FE colleges generally offer a range of academic, vocational, technical and professional courses. Students can enrol in an FE college from the age of 16 years. FE colleges generally offer programmes at every level from entry-level courses that do not require specific GCSE grades as entry requirements through to higher-level qualifications such as HNC/HND and even some degree courses. HE Universities provide degree and post graduate courses for students from 18 years old.

6.2.4 In Thanet, the workforce has fewer vocational qualifications than the averages for the South East and England at levels two, three and four, leading to significantly lower rates of pay (Williamson, 2013, p. 5). It seems that whilst Thanet students do well at A level, they are less likely than students from Kent generally to move on to HE. As Kent County Council's Skills and Employability Service points out, *"the average points per student for Kent selective schools is 890 and the average percentage who go to selective universities is 35%. In comparison, one Thanet selective school had average exam points per student of 955 and the percentage moving to selective universities 24%."* (Williamson, 2013, p. 16)

6.2.5 Thanet has had a university in the district since Canterbury Christ Church University formally opened its Broadstairs campus in 2000. Many students both local and from further afield have gained their degrees studying in Thanet. The University is now proposing a Kent and Medway Engineering, Design, Growth and Enterprise Hub (KM EDGE). The proposed partnership model would bring university and local enterprise together to support engineering, science and technology careers across the region. The presence of the airport could contribute to this partnership, providing a wide range of opportunities to students.

6.2.6 Manston Airport, operating to the levels forecast in Volume III of this series of reports, could do much to raise the aspirations of young people, key to addressing low participation levels in HE. Only by inspiring educational progression will students

improve their life chances and realise their full potential. In this way, a better-educated workforce will help to realise the full economic and social potential of East Kent and the wider Thames Estuary area.

### 6.3 A Manston Airport Training Facility

6.3.1 RiverOak's vision is for a vibrant freight-focused airport, employing local, well-trained people and supporting local, regional and national businesses. In order to meet this challenge, it is essential local people are trained and educated in line with the needs of the opportunities arising. However, the opportunity exists for a much more comprehensive vision of a facility designed to bring together the aerospace industry with academia (universities, colleges and potentially schools), in line with UK and European government policy. As such, RiverOak are keen to establish an aviation facility close to or on the Manston Airport site. This facility will allow the airport's employers to work with HE and FE providers and to link to other initiatives, particularly around science, technology, engineering and mathematics (STEM).

6.3.2 The concept for establishing an aviation facility at the airport is to bring together the UK aerospace industry, government and academia, providing a focus through which to develop effective and sustainable channels of communication. The aim would be to ensure the structures and provision of education, training, and life-long learning support the needs of the aerospace industry. This would move the industry forward and address concerns over innovation and skills shortages. Indeed, there is a requirement for the industry to adopt best practice in learning, people management and continuous professional development whilst also promoting itself so that it will attract and retain the highest calibre talent.

6.3.3 On behalf of previous owners of Manston Airport, the author developed and funded a highly successful BSc Business Studies with Airport Operations degree at the Broadstairs Campus of Canterbury Christ Church University. The success of this degree lay in the ability of the course to attract local students from first generation university families. These highly motivated students were attracted by the involvement of the airport with their local HE provider. The course acted as a pilot for a dedicated Manston facility, which will help match the need for skills by industry with provision by HE, FE and training institutions in the area.

6.3.4 An aviation training and education facility at Manston would provide the South East, particularly the Thames Estuary development area, with a Centre of Excellence in a globally attractive field. A Centre of Excellence is a shared facility that provides leadership, best practice, research, support and training for, in this case, the field of aviation. This inspirational location, close to a vibrant airport, and the ability to study near home should attract young people from across the area. The purpose of the Manston facility would be to:

1. Harness local enthusiasm for the airport and use this to encourage people to enter FE and HE as well as a wide range of other training opportunities.
2. Match education and training provision with the needs of the aerospace industry.
3. Raise the profile of the area as a vibrant, growing and innovative economy with industry and with central Government.
4. Support businesses within the area by providing access to academia and training providers.
5. Help to attract inward investment by increasing the attractiveness of the area through the upskilling of the local and regional workforce.

## 7 Other socio-economic impacts

7.0.1 In addition to the jobs created and the training and education opportunities described in the previous section, this section describes the social and economic impacts of airports, and applies these to Manston.

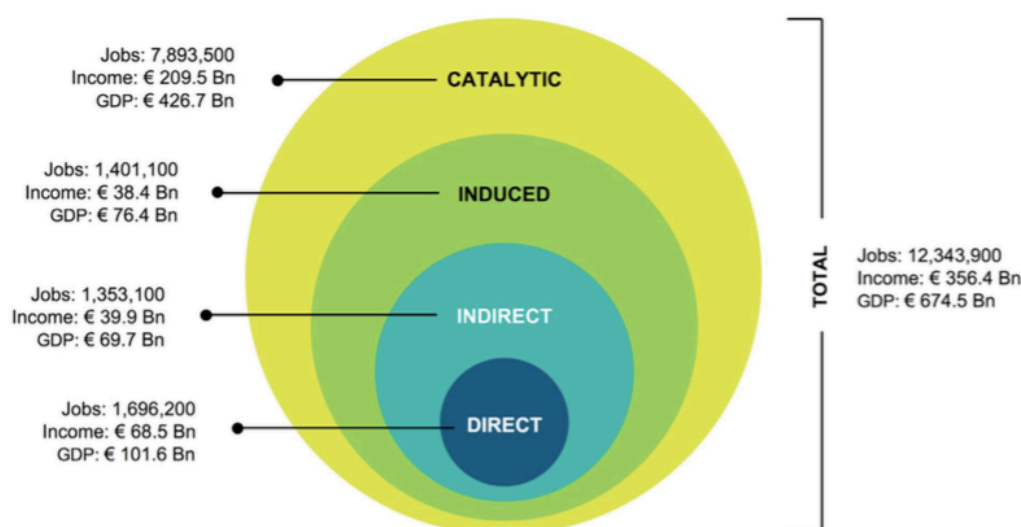
### 7.1 Gross Domestic Product

7.1.1 GDP is a monetary measure of the state of a country or region's economy. In the UK, the Office for National Statistics calculates GDP from output (the value of goods and services produced in the economy), expenditure (the value of purchases made), and income (profits and wages). The OECD states that:

*"Gross domestic product is an aggregate measure of production equal to the sum of the gross values added of all resident institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). The sum of the final uses of goods and services (all uses except intermediate consumption) measured in purchasers' prices, less the value of imports of goods and services, or the sum of primary incomes distributed by resident producer units."*<sup>9</sup>

7.1.2 Figure 12 shows the impact on the economy of Europe's airports.

**Figure 12** Economic impact of European airports



Source: Intervistas, 2015, p. VI

7.1.3 Based on Intervistas figures shown in Figure 11, GDP from direct, indirect, induced, and catalytic effects are calculated as follows:

Direct:	1,696,200 jobs equate to €101.6 billion in GDP One job = €59,899/£50,315
Indirect:	1,353,100 jobs equate to €69.7 billion in GDP One job = €51,511/£43,270
Induced:	1,401,100 jobs equate to €76.4 billion in GDP

<sup>9</sup> <https://stats.oecd.org/glossary/detail.asp?ID=1163>

One job = €54,529/£45,804  
 Catalytic: 7,893,500 jobs equate to €426.7 billion in GDP  
 One job = €54,057/£45,408

The conversion from Euros to Sterling has been calculated at €1 to £0.84.

7.1.4 These figures have been applied to the forecast provided for Manston Airport, as shown in Table 5. Since the calculation used for indirect and induced jobs was combined, the lower figure of €51,511 per job in these categories has been used. As Table 5 shows, the effect of an operational airport at Manston has a considerable impact on GDP. Indeed, by year 20 of operation, the total GDP from direct, indirect, induced, and catalytic impacts is forecast to be in the region of £1.4 billion.

7.1.5 In addition to GDP, GVA, a measure of the contribution to the economy of producers, industries or sectors, is a key indicator of the state of the whole economy. The difference between the two measures is that GVA does not include taxes and subsidies as shown by the following formula that links GVA and GDP:

$$\text{GVA} + \text{taxes on products} - \text{subsidies on products} = \text{GDP}$$

7.1.6 For this calculation, the term GDP is used by Intervistas to refer to the contribution to GDP provided by the airport industry (Intervistas, 2015). It should be noted that the Intervistas work covered European airports and therefore the figures are not UK-specific. However, the UK is second only to Germany in terms of direct employment at airports in Europe.

*Table 5 Manston GDP calculation*

	Direct		Indirect/ induced		Catalytic		Total
	Jobs	GDP (millions)	Jobs	GDP (millions)	Jobs	GDP (millions)	GDP (millions)
Y1	116	£5.8	0	£0	0	£0	£5.8
Y2	856	£43.1	1,798	£77.8	0	£0	£120.9
Y3	1,551	£78.0	3,257	£140.9	6,203	£281.7	£500.6
Y4	2,085	£104.9	4,379	£189.5	8,341	£378.7	£673.1
Y5	2,150	£108.2	4,515	£195.4	8,601	£390.6	£694.1
Y6	2,466	£124.1	5,178	£224.0	9,862	£447.8	£795.9
Y7	2,576	£129.6	5,411	£234.1	10,306	£468.0	£831.7
Y8	2,645	£133.1	5,555	£240.4	10,581	£480.5	£853.9
Y9	2,668	£134.2	5,603	£242.4	10,673	£484.6	£861.3
Y10	2,749	£138.3	5,773	£249.8	10,996	£499.3	£887.4
Y11	2,870	£144.4	6,027	£260.8	11,479	£521.2	£926.4
Y12	3,011	£151.5	6,322	£273.5	12,042	£546.8	£971.9
Y13	3,135	£157.7	6,584	£284.9	12,542	£569.5	£1,012.1
Y14	3,280	£165.0	6,889	£298.1	13,122	£595.8	£1,059.0
Y15	3,438	£173.0	7,220	£312.4	13,753	£624.5	£1,109.9
Y16	3,595	£180.9	7,550	£326.7	14,381	£653.0	£1,160.6
Y17	3,748	£188.6	7,871	£340.6	14,993	£680.8	£1,210.0
Y18	3,930	£197.7	8,253	£357.1	15,720	£713.8	£1,268.7
Y19	4,085	£205.5	8,578	£371.2	16,338	£741.9	£1,318.6
Y20	4,271	£214.9	8,970	£388.1	17,085	£775.8	£1,378.8

7.1.7 Thanet's Economic Growth Strategy (TDC, 2016, p. 16) includes ambitious targets for GVA per job and per capita. Their figures show a considerable difference between Thanet and Kent for these measures of productivity and wealth. In order to achieve the Council's vision, the growth rate required to match the Kent average by 2031 would be 3.5% per annum for GVA per job (productivity) and 5.2% per annum for GVA per capita (wealth). These figures are almost double the growth rate based on what TDC call 'business as usual assumptions' for productivity and approaching three times that for wealth. Without a major employer, whose operation generates considerable indirect, induced and catalytic impacts on the Thanet economy, the vision described by the Council will be difficult to achieve.

7.1.8 In addition to GVA per job and per capita, additional jobs in the economy give rise to tax income for government. The tax-to-GDP ratio compares GDP to the amount of tax able to be collected by the Government. The OECD's annual Revenue Statistics report<sup>10</sup> found that the tax-to-GDP ratio for the United Kingdom in 2015 was 32.5%. Therefore, applying this ratio to the figures shown in Table 5, provides an estimate of the tax revenues generated by the operation of Manston Airport through direct, indirect, induced and catalytic job creation. These are shown in Table 6.

**Table 6 Tax-to-GDP**

	GDP (millions)	Tax (millions)
Y1	£5.8	£1.9
Y2	£120.9	£39.3
Y3	£500.6	£162.7
Y4	£673.1	£218.8
Y5	£694.1	£225.6
Y6	£795.9	£258.7
Y7	£831.7	£270.3
Y8	£853.9	£277.5
Y9	£861.3	£279.9
Y10	£887.4	£288.4
Y11	£926.4	£301.1
Y12	£971.9	£315.9
Y13	£1,012.1	£328.9
Y14	£1,059.0	£344.2
Y15	£1,109.9	£360.7
Y16	£1,160.6	£377.2
Y17	£1,210.0	£393.2
Y18	£1,268.7	£412.3
Y19	£1,318.6	£428.5
Y20	£1,378.8	£448.1

## 7.2 Tourism

7.2.1 Thanet and East Kent have a wealth of tourist attractions that can be leveraged by the presence of an active airport at Manston. As well as the coastline, beaches, villages and countryside, Thanet's attractions include:

<sup>10</sup> <https://www.oecd.org/tax/tax-policy/revenue-statistics-united-kingdom.pdf>

- Dreamland
- Charles Dickens-related attractions
- Historic Manston
- Hornby visitor centre
- James Bond- related attractions
- Port of Ramsgate
- The Turner Contemporary Gallery
- Sailing events

7.2.2 Despite Thanet’s obvious attractions, the number of day visits to the district fell below those of other East Kent areas. Thanet recorded 3.4 million day visits with associated spend of £119.4 million in 2015, lower than Canterbury, Shepway, Dover and Ashford. As a total of day visits to Kent, Thanet accounted for just 6% in 2015 (Destination Research, 2016). In terms of overnight stays, Thanet received 351,000 trips by UK-based visitors and a further 143,000 by overseas visitors. This accounted for 11% of the total staying visits in Kent. Table 7 shows the comparisons across East Kent.

**Table 7 Visitors to East Kent**

	Day trips		Staying nights domestic		Staying nights overseas	
	Number (millions)	Spend (millions)	Trips ('000)	Spend (millions)	Trips ('000)	Spend (millions)
Ashford	3.9	£133.9	771	£44	457	£28
Canterbury	6.6	£215.2	1,438	£77	1,233	£69
Dover	3.9	£116.0	976	£64	479	£25
Shepway	4.1	£122.9	1,004	£62	394	£20
Thanet	3.4	£119.4	993	£54	1,066	£68

Source: Compiled from Destination Research, 2016

7.2.3 There is no doubt that tourism can contribute considerably to local economies. For example, visitors to the Canterbury district were estimated to contribute £446,709,000 in terms of economic impact in 2013 and to have supported 8,526 jobs (Canterbury City Council, 2015, p. 37). In Thanet, tourism supported 4,405 full-time equivalent jobs in 2015, an increase of 22% on 2013, and tourists spent £250 million during their visit (Destination Research, 2016, pp. 17-19).

7.2.4 In addition to the type of tourism shown above, East Kent benefits from ‘long-term tourism’ including language school students and pilgrims. In 2013, language schools contributed £33.6 million to the Thanet economy, supporting 905 jobs and accounting for almost half a million visitor-nights<sup>11</sup>. Canterbury Cathedral attracts around 900,000 visitors per year<sup>12</sup> and the Divine Retreat in Ramsgate also attracts considerable numbers of staying visitors. These long-term visits would be more readily facilitated and encouraged through the operation of passenger services at Manston Airport.

### 7.3 Connectivity

7.3.1 Connectivity is the extent to which a location is connected to desired destinations including whether connections are direct or indirect, travel times, the

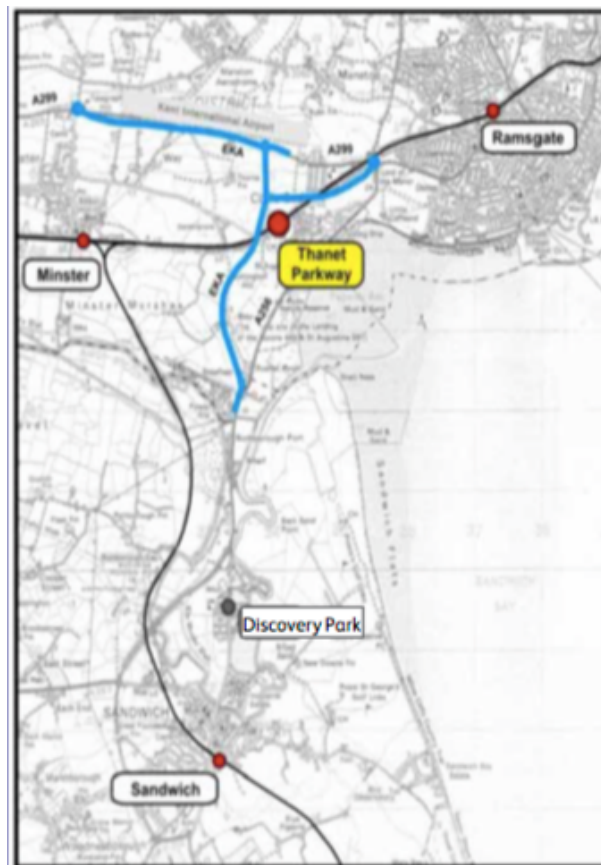
<sup>11</sup> <https://www.thanet.gov.uk/the-thanet-magazine/news-articles/2015/january/language-schools-contribute-336-million-pounds-to-thanet-economy/>

<sup>12</sup> <http://www.alva.org.uk/details.cfm?p=423>

frequency and reliability of services, quality and costs. Connectivity is vital to UK business and has been for many centuries. As an island nation, the UK's geographic location necessitates excellent connectivity in order for businesses to be able to export and import. Connectivity also acts as a stimulus to inward investment including Foreign Direct Investment, tourism, and firms' location decisions.

7.3.2 The Draft Economic Growth Strategy for Thanet (2016) describes the importance of improved connectivity to the local economy. Access to London from Thanet has historically been slow but, with the advent of HS1, travel times have reduced to around one hour and 15 minutes to St Pancras station. Of course, Thanet has access to the continental Europe via the Channel crossings at both Dover and Cheriton/Folkestone. The proposed Thanet Parkway Railway Station, one kilometre from the airport runway as shown in Figure 13, would provide access to central London in less than one hour (TDC, 2016, p. 4).

**Figure 13** Thanet Parkway Station



Source: Kent County Council in Network Rail, 2017, p. 73

7.3.3 In terms of Thanet's connectivity with airports (excluding Manston), Network Rail says that:

*"Passengers travelling from Kent can connect to services calling at Gatwick Airport at Redhill from Tonbridge. This service was extended to Gatwick Airport in the past, but it was discontinued owing to low usage levels. National Express operated a coach service from Ashford to Gatwick Airport, but this has also been withdrawn. Though the level of connectivity from Kent is lower than that from central London, the analysis undertaken as part of the Kent Area*

*Route Study has concluded that there is no specific connectivity gap between Kent and Gatwick Airport.” (Network Rail, 2017, 4.7.3, p. 50)*

7.3.4 East Kent benefits from a major port at Dover. The Port of Dover is the busiest passenger port in the world, handling more than 12 million passengers, over two million cars and 87,000 coaches, and more than two and a half million HGVs in 2016<sup>13</sup>. Eurotunnel also connects East Kent with France and handled 1.6 million HGVs, 1,797 rail freight trains, 2.6 million cars, 53,600 coaches, and more than 10 million passengers in 2016<sup>14</sup>.

7.3.5 Brexit means that Britain now has to negotiate Free Trade Agreements (FTA) with the EU. It is possible that higher tariffs and non-tariff barriers will affect trade between the UK and the EU and increase time taken to cross borders between the UK and EU countries. This will particularly affect the Channel crossings where increased security checks and ensuring tariffs are paid where necessary may cause congestion and delays. Operation Stack<sup>15</sup> has demonstrated the impact on the surrounding area and has caused considerable problems for transporters of perishable goods. Businesses may decide to switch from trucking to air freight and Manston Airport would provide the much needed capacity in the South East.

7.3.6 A 10% increase in connectivity in air transport is associated with an increase in GDP per capita of 0.5% (Intervistas (2015, p. xiii). An international airport at Manston with both freight and passenger services, will increase the connectivity between Thanet, East Kent and much of the South East to the rest of the world.

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<sup>13</sup> <http://www.doverport.co.uk/about/performance/>

<sup>14</sup> <http://www.eurotunnelgroup.com/uk/eurotunnel-group/operations/traffic-figures/>

<sup>15</sup> Operation Stack is the procedure used by Kent Police and the Port of Dover when services across the Channel are disrupted. Lorries are parked ('stacked') on the M20 motorway. Other vehicles are diverted onto the A20 causing congestion on local roads.



## 8 Conclusions

8.0.1 This report has described the socio-economic benefits deriving from the operation of Manston Airport to the level forecast in Volume III of this series of reports. Thanet has particular problems associated with deprivation including relatively high unemployment, low wages and low participation in HE. The presence of a vibrant airport in Thanet would help address these issues and be a great asset to the economy. As such, support from local MPs for this multimillion-pound inward investment has been unwavering.

8.0.2 The freight and passenger figures provided in Volume III allowed a forecast for the number of jobs created directly, indirectly/induced, and catalytically to be calculated. These figures show direct employment in year 5 of around 2,150 people, rising to nearly 4,300 by the twentieth year, based on East Midlands Airport figures. When all impacts on job creation are taken into account, using the formulae detailed in Section 4.2, an estimated total of just over 15,000 jobs will be added to the wider UK economy by the fifth year of operation, increasing to approximately 30,000 by year 20.

8.0.3 This level of employment must be supported by training and development, and RiverOak plans to work with all relevant organisations to ensure local people benefit from the opportunities that an airport will bring. Raising the aspirations of young people in Thanet is essential if the district's vision is to be realised, particularly in encouraging progression to degree level education. RiverOak will work with local providers to ensure every opportunity is leveraged from the operation of the airport. In particular, RiverOak are keen to promote the establishment of an aviation training and education facility in partnership with HE and FE providers.

8.0.4 Additional benefits include improving connectivity and supporting the internationalisation of local and regional businesses. A vibrant, successful airport will increase local, regional and national GVA, encourage businesses to locate in the area, attract Foreign Direct Investment, and support the work of the Thames Estuary 2050 project.

8.0.5 It is clear from the findings detailed in this report that the benefits of an operational airport at Manston would be in the public interest. Airports are an essential element of modern economies and are uniquely able to leverage a wide range of socio-economic benefits for their local and regional communities.

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