We are the Journey Makers

East Midlands Airport Cargo Strategy Study

March 2024

MAG East Midlands Airport

Contents

1. Introduction

Aviation experts *York Aviation* and freight specialists *MDS Transmodal* were jointly commissioned by *Manchester Airports Group (MAG)* to undertake a project analysing the cargo market in the UK and the future market prospects for East Midlands Airport (EMA).

This document sets out the main findings from the project.

2. UK Air Freight Market

The UK air freight market can be divided into four segments:

1. General air cargo
   - Can be carried in the bellyholds of long-haul passenger flights (wide-bodied aircraft) or on dedicated freighter aircraft
2. Express air freight
   - Dominated by three integrators (UPS, DHL and FedEx)
3. Niche and specialist products
4. Mail

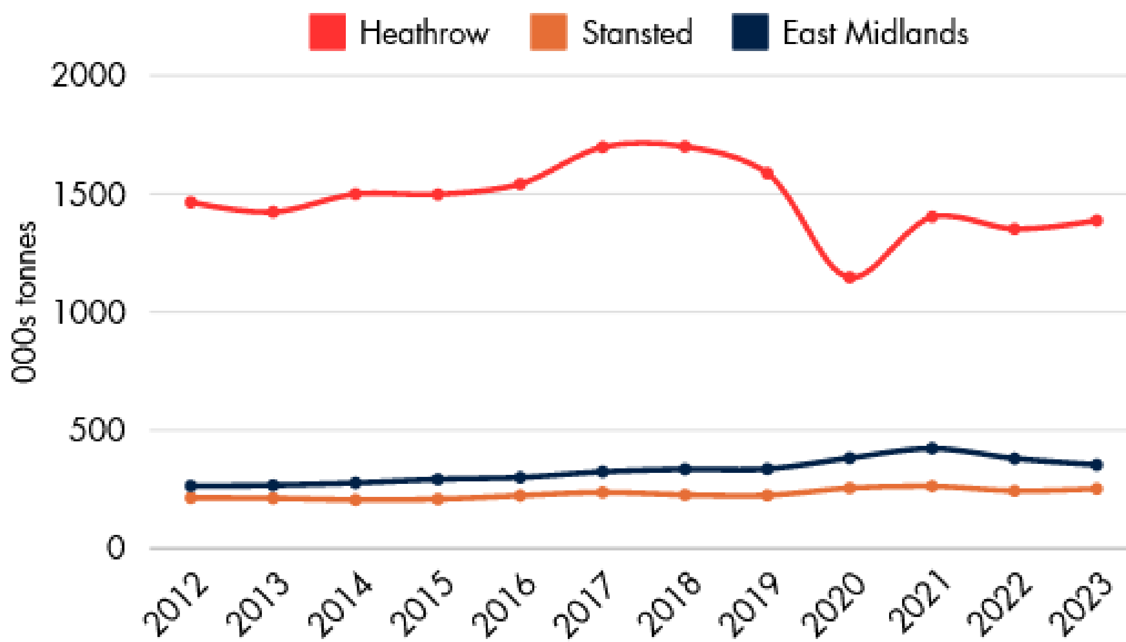
UK Air Freight Market

- The UK air freight market is dominated by bellyhold freight
- This is handled primarily on scheduled long-haul services from Heathrow
- Activity currently at EMA is predominantly express freight carried by the main integrators

Market share in air freight volumes 2022

UK Air Freight Market

Figure 1: Air freight volumes in major UK airports 2012-22



Source: Civil Aviation Authority

Heathrow experienced a fall-off in volume during the Covid-19 pandemic as it largely depends on bellyhold capacity on passenger services.

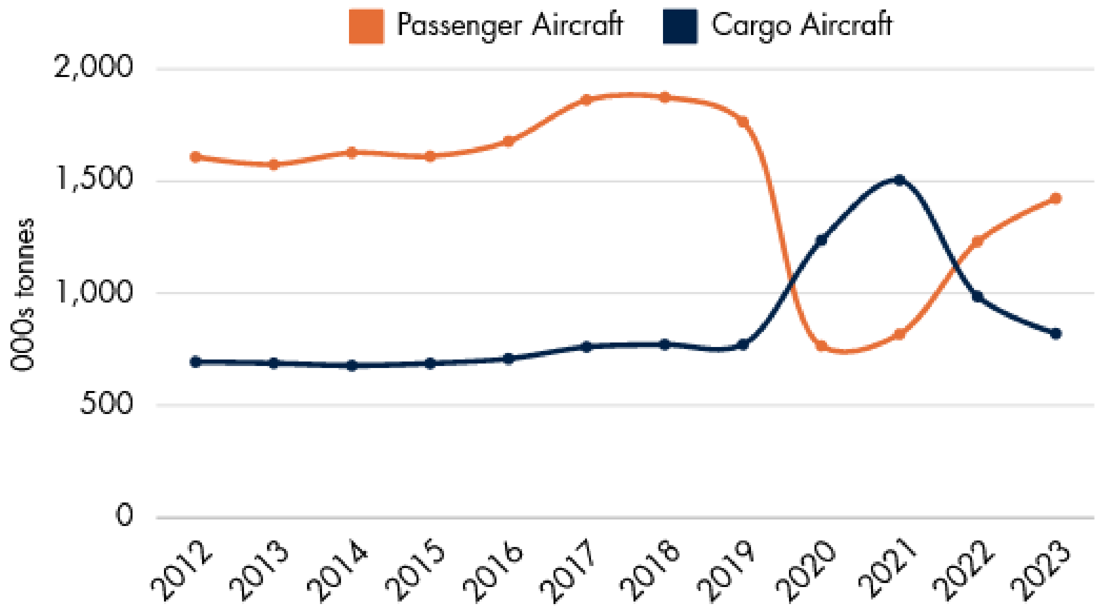
In contrast, air freight volumes handled at EMA has grown markedly over the same period.

UK Air Freight Market

Air freight volumes temporarily transferred to cargo aircraft (including re-purposed passenger planes) during Covid-19.

Market appears to be returning to a degree of normality as the long-haul passenger market recovers.

Figure 2: Bellyhold and Cargo Aircraft Volumes since 2019

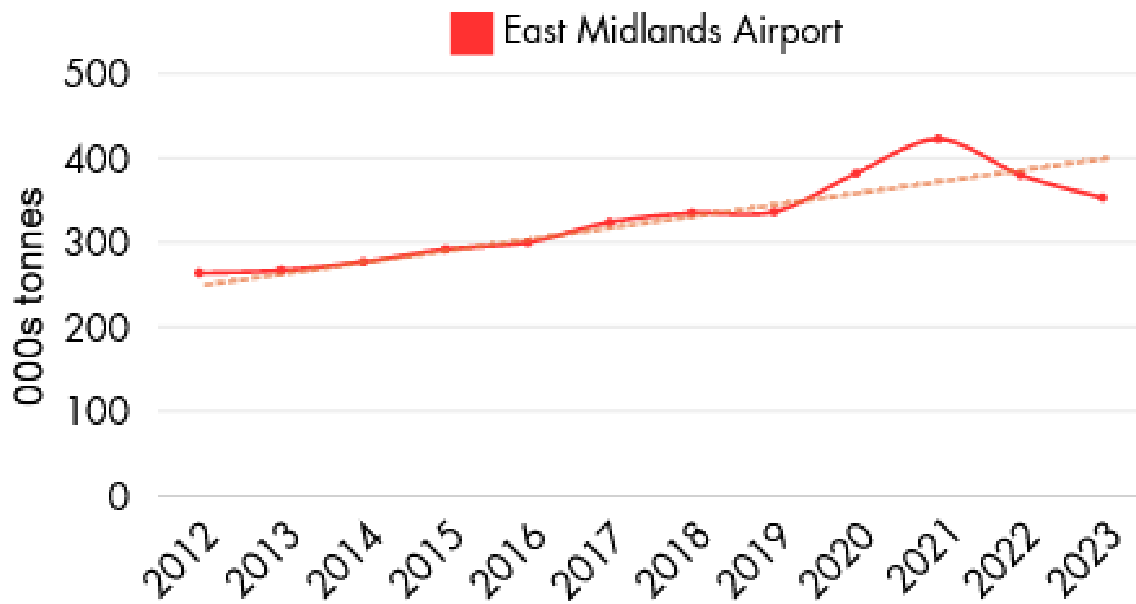


Source: Civil Aviation Authority

3. EMA 10-year trend

- Freight volumes at EMA have grown without 'step-changes'
- Volumes in 2022 are broadly in line with the 2012-22 growth trendline

Figure 3: East Midlands Air Freight Volumes 2012-2022 (thousand tonnes)



Source: Civil Aviation Authority

4. Air Cargo Volumes Mainland Europe

Table 1: Air Freight Volumes Mainland Europe Airports (000s tonnes)

	2018	2019	2020	2021	2022	% change 2018-22
Frankfurt (Main)	2,176	2,089	1,911	2,271	1,967	-10%
Paris CDG	2,124	2,096	1,740	2,055	1,894	-11%
Leipzig/Halle	1,209	1,227	1,377	1,587	1,508	25%
Amsterdam (Schiphol)	1,730	1,592	1,455	1,680	1,445	-16%
Liege	799	809	1,026	1,325	1,051	32%
Koln/Bonn	844	799	842	967	958	13%

(>0.25 million tonnes in 2022)

Source: Eurostat

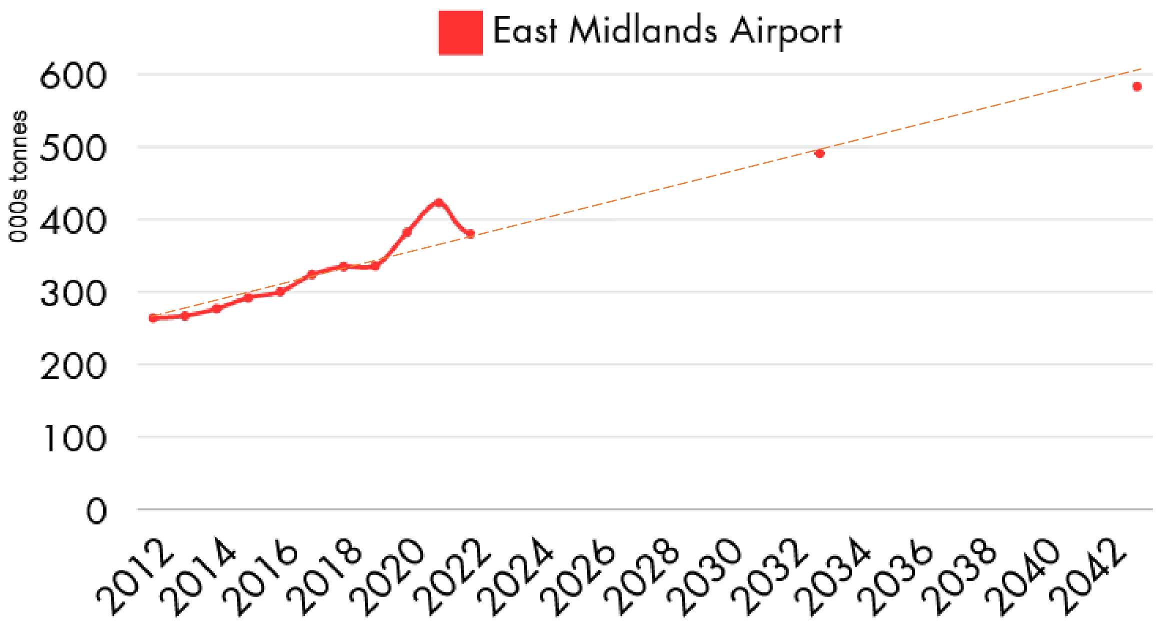
A similar picture to the UK position is apparent:

- **Bellyhold cargo volumes at long-haul passenger hub airports (e.g. Frankfurt) have declined**
- **In contrast, airports like EMA which accommodate integrator operations, such as Liepzig/Halle and Liege, have seen volumes increase**

5. EMA Baseline Forecast

- Freight volumes at EMA are forecast to grow by 54% to 2043
- Growth projections are broadly in line with the 2012-22 growth trendline
- Trade growth, GDP and Heathrow constraints the long-run drivers

Figure 4: East Midlands Air Freight Baseline Forecast to 2043 (thousand tonnes)

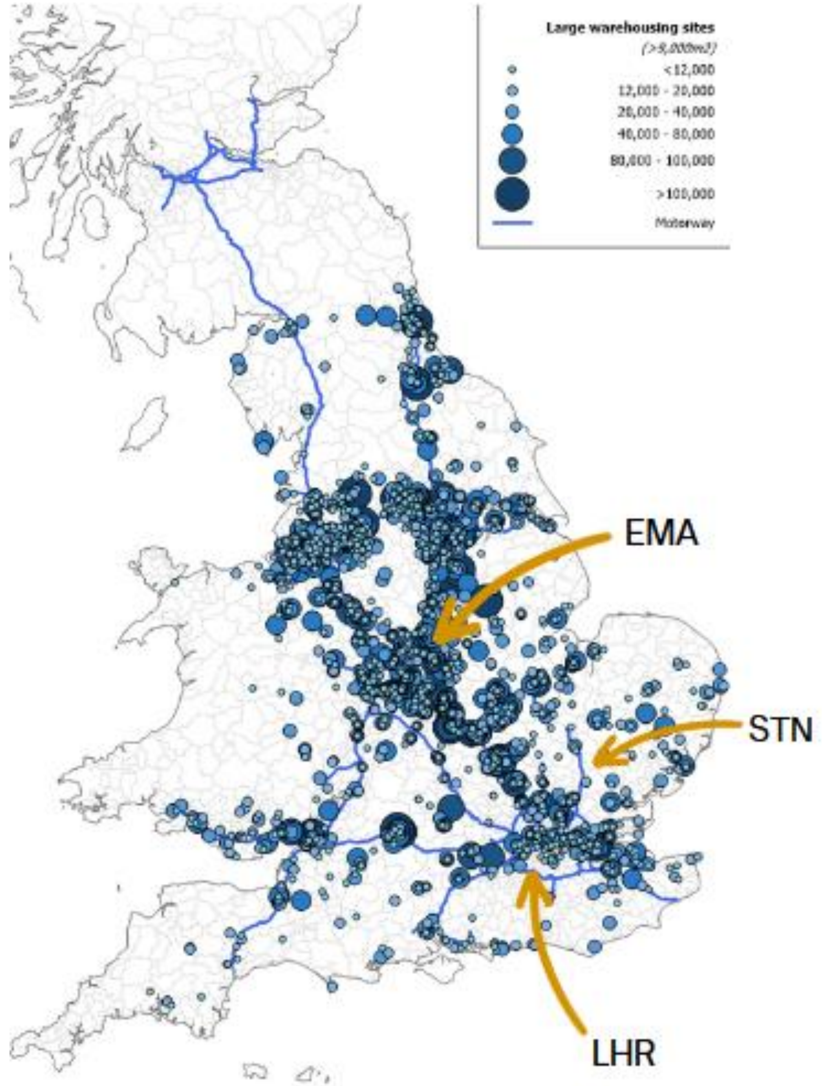


Source: Civil Aviation Authority

6. EMA Location – Comparative Advantage

- EMA is ideally located with respect to origins and destination of air freight
- This gives EMA a comparative advantage over Heathrow and Stansted
- Just over 80% of all large-scale warehousing is within a 200km radius of EMA
- Equivalent figures for Stansted and Heathrow are 51% and 53% respectively
- EMA is centrally located to serve all these centres across the UK.

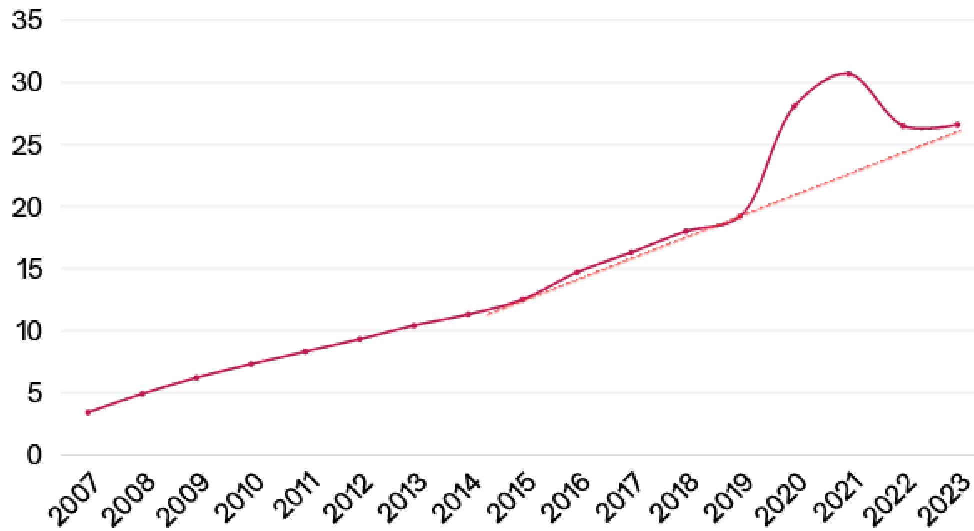
Figure 5: Location of Large-scale Warehousing England and Wales 2023



7. E-Commerce Growth

- **UK e-commerce sales grew to 27% of all retail sales in 2022 from only 3% in 2004**
- **The COVID-19 pandemic caused an uplift in sales during 2020 and 2021**
- **The 2022 figure is still marginally ahead of the 2012-2022 trendline (dotted line)**

Figure 6: UK E-commerce Sales as % of Total Retail Sales



Source: ONS

E-Commerce Growth

The standard 'logistics model' adopted by e-commerce retailers is based around Customer Fulfilment Centres (CFCs), from where on-line orders are picked and despatched.

However, recent development has shifted the locations of some CFCs to mainland Europe e.g. Nike operates a very large EDC facility at Laakdal in Belgium.

Integrators are used to provide premium next-day delivery services.

Inbound supply of inventory at CFCs generally utilises sea freight – suggests limited potential for EMA.

Provides an opportunity for EMA, given its position as a base for two leading major integrators, central location in the UK and links to European hubs

E-Commerce Growth

Emergence of several China-based online retailers (e.g. Temu and Shein) selling directly into European markets from the Far East.

Different commercial model to Amazon, Next etc.., based around low-cost manufacturing (materials, labour, storage) and use of spare capacity on integrator flights or dedicated freighters to provide 3 to 10-day delivery lead times, passing via European hub airports.

Increasing fulfilment from the Far East provides an opportunity for EMA, given its position as a base for two leading major integrators and connections with Liepzig, Liege etc..

8. Additional Areas Examined

Free Trade Agreements (FTAs)

FTAs are international treaties between two or more countries designed to facilitate and enhance trade between the signatories.

Their long-run impacts are relatively small. Geography and administrative processes at the border are greater barriers to trade rather than tariffs.

Other market opportunities

It seems unlikely a new based operator would come forward to develop a major base at EMA.

New entrants are difficult to predict, and ad-hoc non-based general air freight is a declining market that is not viable for airlines.

Expanding ancillary services or entering the handling market would be challenging as it would put EMA in direct competition with DHL and UPS and outside its existing base of expertise.

9. Summary of Opportunities at EMA

- **Continuing relationship with the main integrators**
- **Tap into the growing e-commerce market and its use of integrator capacity**
- **Baseline forecasts suggest continual growth to 2043**

10. Growing employment

Overall, further growth of cargo activity is expected to support a significant amount of additional economic activity, both from the operations of the companies involved in the delivery of cargo services and through the productivity boost that the availability of express services provides to user companies across the UK economy.

The growth in air cargo at EMA forecast through this process will support between:

- £687 million and £1.8 billion in additional GVA and between 2,700 and 12,600 additional jobs by 2030;
- £1.5 billion and £3.5 billion in additional GVA and between 5,100 and 20,500 additional jobs by 2040;
- £1.8 billion and £3.9 billion in additional GVA and between 5,600 and 21,300 additional jobs by 2043.

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