Now flying long distance

DSAs expansion continues with TUI announcing an extra 110,000 seats, with six fantastic new routes for summer 2019 and Yorkshire’s only direct long-haul destination with flights to Florida.

The new destinations will be on sale from April 2018.

NEW FOR SUMMER 2019

» ORLANDO, FLORIDA
» PULA, CROATIA
» HURGHADA, EGYPT
» KOS, GREECE
» BODRUM, TURKEY
» ENFIDHA, TUNISIA
1 Foreword
Foreword

Why is this masterplan important to you?

This masterplan sets out what the future for the airport holds, and how its unique potential will be fulfilled to deliver major international connectivity for Yorkshire, surrounding regions and the UK. Furthermore, it explains how the airport and its wider estate will drive significant job creation in Doncaster and the Sheffield City Region. The plan shows how the airport will become a place combining living, working and travel, truly a part of the social and geographical fabric of Yorkshire and The Humber, North Nottinghamshire, Lincolnshire and North Derbyshire.

Locally an airport serves many purposes – a fully realised Doncaster Sheffield Airport (DSA) and its wider 1,600-acre site, known as Aero Centre Yorkshire (ACY) will offer a vast number of skilled jobs for present and future generations. Spending will be retained by attracting businesses and people to the area and by providing easily accessible international connectivity locally.

An international airport puts a region on the global map, the airport acts as a magnet to draw people and investment to the region, driving economic activity and other industries such as tourism. The DSA masterplan outlines not only how passenger, cargo and general aviation growth will be delivered but how over manageable stages the airport will move towards being a well-planned, sustainable, mixed employment and residential area including a range of retail, leisure and other amenities.

Nationally, DSA offers a unique opportunity to deliver a major international gateway for the country. The site, infrastructure and available aviation capacity are all primed to accommodate growth. Whilst the planned expansion in South East aviation capacity is much needed for UK plc and we support that expansion, it cannot alone deliver the aviation capacity to meet the demand forecast for the UK. DSA is ready now to provide a sizeable contribution towards UK aviation capacity needs and support rebalancing the UK economy through practical and cost-effective additions to existing aviation and wider transport infrastructure.

At present, DSA and its wider Aero Centre Yorkshire site adds a gross valued added of £62 million per annum to the regional economy and supports almost 1,000 jobs. This in itself sees the airport making a major contribution to the economy. However, through this masterplan we will outline how the current contribution Aero Centre Yorkshire makes to the economy and labour markets of the region can grow exponentially.

The government’s Aviation Policy Framework recommends that airports produce masterplans which should be updated every five years in order to create a clear statement of intent from the airport operator, enabling and safeguarding future development of the airport. Our masterplan intends to go beyond that and show why DSA can deliver so much more and be of national significance.
What does the masterplan entail?

The masterplan provides illustrative but realistic plans to outline the development and growth of the airport between 2018 and 2037.

This marks an important time for DSA as it is experiencing significant growth resulting from new passenger services, increased cargo and general aviation activity. The plan will set out the expected scenario for the airport’s future growth as well as an aspirational high growth scenario.

It will also make reference to the airport’s separate Vision Plan document which outlines the almost unrivalled capacity opportunity that DSA presents and explores the scale of connectivity and economic benefits that would arise should this transformational opportunity be realised. This would see the high growth case and much beyond achieved.

The masterplan will also show how the airport and the wider 1,600-acre Aero Centre Yorkshire estate will develop. The site is already in the midst of a transition towards a sustainable community anchored by significant additional airside and landside employment developments.

Alongside these developments would be an enlarged residential area, with all uses centred around a new hub of retail, food and drink, hotel and other community services. The ambition is to make the airport truly a place that people come to travel, work, live and socialise.

The masterplan will also tell the story of where DSA has come from, where success and progress have been achieved despite challenging economic conditions. It will show the important considerations the airport must take into account when planning its growth so as to minimise and mitigate any impact it may have, such as on the environment. The masterplan will also outline the economic contribution that will be delivered, creating sustainable, high value and high skilled opportunities for local people, benefitting the region and the UK as a whole.
Setting and planning aspirational goals

The masterplan covers three main areas of growth at the airport – passenger, cargo and development of the wider ACY site.

Forecasting passenger and cargo involves dealing with many variables, some are in the control of the airport and our stakeholders whilst others are external factors such as the market, competitor activity, changes in technology and government policy.

The masterplan therefore sets out a core growth scenario of what is likely to be achieved but also presents a high growth scenario reflecting the aspiration, opportunity and capabilities presented by DSA and ACY.

The high growth scenario would be dependent on a number of factors that could facilitate accelerated growth of the airport but cannot be wholly guaranteed such as:

- Above anticipated demand through unexpected changing market conditions
- Rail connectivity to the East Coast Mainline being achieved at the site during the masterplan period
- Limitations on capacity growth in major airports in the South East / North West
- Changes in government policy
  - e.g. greater support for uncongested regional airports and their role as economic growth clusters
- Economic growth higher than current long term forecasts
- Deregulation within the aviation sector
  - e.g. slot rights between UK and other countries such as China
- Regulatory environment
  - e.g. reduction of air passenger duty and greater equality in cost burdens borne relative to the size of the airport

Critically the masterplan futureproofs all parts of the airport’s business by setting out the land required necessary to meet the level of development to realise the high growth scenario for passengers, cargo and the wider site.

The forecast scenarios have been developed by specialist independent forecasters based on assumptions agreed with the DSA aviation development team.

The current planning consent for the airport limits aircraft movements of 57,000 with the airport having seen an average of 16,000 movements per year over the last 3 years. Growth beyond these numbers will require further planning consent which is supported in principle within the Doncaster Core Strategy.

The necessary planning applications would be subject to appropriate assessments of the impact on the immediate locality and areas beneath flight paths.
Positively impacting people’s lives

The airport is owned by Doncaster Sheffield Airport Ltd, which is a subsidiary of the Peel Group. Peel Group is one of the leading infrastructure, real estate and investment enterprises in the UK, operating nationally, although mainly in the North of England, in transport and logistics, retail and leisure, land and property, energy and media. The group have been developing airports for over 20 years and have extensive expertise in airport infrastructure planning and development.

Peel is passionate about the growth, regeneration and prosperity of the North of England and is committed to ensuring the long-term growth and success of DSA. It has a track record of reinvesting into communities creating economic activity, employment and a better standard of life for everyone in the North.

“Creating jobs, delivering new homes, regenerating our towns and cities, and helping to build prosperity for all in the North has been our focus for several decades and it remains at the heart of what we strive for.”

Peel in the Northern Powerhouse, October 2016

Airports are long-term projects taking many years to develop and requiring considerable ongoing investment. Peel has invested £200 million developing DSA and ACY to date and sees it as the epitome of its mantra of determination, perseverance and patience. In 2013, Peel re-acquired its majority ownership of the airport from Vantage Group Services who had taken a majority share back in 2010. Since re-acquiring the airport, a new business strategy has been put in place to drive long-term growth of the airport with clear signs being seen over recent years.

By working together in partnership with stakeholders locally, regional and nationally, the group believes it can achieve its goal to be the UK airport of choice for airlines, passengers and freight operators in the area east of the Pennines.
Our people and our community

The success of DSA is ultimately driven by the travelling public and cargo operators choosing to use DSA. This cannot be enabled without our people who play such a crucial role in delivering a best in class customer experience.

DSA benefits from a small but hard working team of people, the majority of whom have been employed locally.

DSA values its people, our people are what drive our success and shape how we achieve our long-term ambitions.

Playing our part in our community is also of paramount importance to DSA, we recognise the privilege we have been granted to operate and develop the airport here.

We see supporting local charitable, community, social or environmentally focused initiatives as a tangible way we can recognise this privilege.

Recognising the past is also important, DSA’s roots sit firmly in the foundations laid by our home of RAF Finningley and we look forward to celebrating 100 years of the RAF this April.

Our Community Investment Fund is open to fund activity related to heritage conservation, environmental improvement, improving health and wellbeing and bringing the community together.

We undertake various initiatives to raise funds for our chosen charity, the Sheffield Children’s Charity and over the last three years have raised over £12,500 for the charity. Staff across the airport take part in regular fundraising activity and national initiatives such as the Love to Ride cycling competition.
Our name

In 2016, we launched a new logo in recognition of the number of changes the airport was experiencing such as the opening of the Great Yorkshire Way and major growth in airlines, leading us to feel the time was right for a new look.

The logo will help us establish ourselves in the region as Doncaster Sheffield Airport – successful airports must be aligned with and recognised as being part of the major city conurbation that they serve.

Robin Hood remains a key part of our airport’s brand going forward, with his statue proudly displayed in the terminal building.

The legend of Robin Hood has great value internationally and ensures we stand out from the crowd, but the time is right to place increased emphasis on our place in the Sheffield City Region.

What can you do?

Wide-ranging support of our masterplan will be critical to our success as we work with our stakeholders and partners to collectively drive forward the airport’s development for the good of our region.

So, whether we are on your doorstep or play a different role for you from further afield, please consider what we are proposing and respond giving us your views and we hope support.

We wholeheartedly welcome your comments and suggestions.

Steve Gill
Chief Executive, Doncaster Sheffield Airport
2 Introduction and executive summary
Introduction and executive summary

The masterplan provides airport development realising:

- A passenger operation of; up to 4.7 million passengers by 2037 with potential for up to 7.2 million to be achieved in a high growth case

- A cargo operation handling 70,000 tonnes of air cargo by 2037, with potential for up to 176,500 tonnes of air cargo in a high growth case

- Major terminal enhancement - doubling the size of the terminal with expanded check-in, security, departure and immigration areas – new retail facilities to enhance the customer experience

- 1.5 million sq ft of airside development. Including expanded cargo operations, general and business aviation facilities, multipurpose hangarage, and a dedicated Maintenance Repair Overhaul (MRO) campus, incorporating a satellite of the University of Sheffield’s Advanced Manufacturing Research Centre

- Over 3 million sq ft of landside logistics and advanced manufacturing space accessed by new site access roads

- 2–3,000 new residential homes on the site

- New retail, hotel and leisure complex including community facilities fully integrated with new housing and employment areas

Economic impact

- core growth scenario

- Creation of 7,800 new jobs, £900 million of construction investment, seeing an economic benefit of £3.7 billion to the region and surrounding areas by 2037

- A £159 million boost to the region’s inbound tourism economy, creating an additional 565 jobs within the tourism sector

Economic impact

- high growth scenario

- Creation of 13,000 new jobs, £1.6 billion of construction investment and economic benefit of £6.5 billion be realised by 2037

- The region’s tourism economy would see a £238 million boost with an additional 945 jobs created within the sector
Safeguarded rail corridor

Proposed solar farm

Future residential and living

Advanced manufacturing and logistics

MRO campus and innovation district

Business and commercial

GA South

Hotel, retail and leisure

Passenger terminal, car parking and public transport

Cargo South

Cargo North

GA North

Car parking

Great Yorkshire Way
M18 J3

Doncaster Sheffield Airport – masterplan 2018–2037
DSA has already started to take off

The airport has grown faster than the UK market average over the last 36 months and was the fastest growing airport in the UK in FY2016/17.

The airport has seen 88% growth in passenger numbers in the last 4 years (FY13/14 – FY16/17), seeing a 180% growth in cargo tonnage over the same time period.

Further, having been open for 12 years, DSA’s resilience has already been tested and proven. The airport has weathered one of the most profound global economic recessions on record. Indeed 2017 was a record-breaking year for both passengers and cargo traffic with 1.23 million passengers and 10,000 tonnes of cargo.

The first phase of the Great Yorkshire Way link road was delivered in 2016, connecting the airport to the M18. The link road provides a gateway befitting of an international airport of DSA’s potential, bringing 6.1 million people within an hour’s drive and truly unlocking the airport’s central UK position.

Ready to become a major international gateway

Opened in 2005, Doncaster Sheffield Airport (DSA) is the first full service airport to open in the UK in 50 years and one of the fastest growing airports in the UK.

Today the airport now handles over 1.2 million passengers per annum, serving over 45 destinations and 23 countries across the world, alongside a rapidly growing cargo operation. Emerging opportunities see the airport creating a major economic cluster of businesses around the airport, Aero Centre Yorkshire.

DSA sits in an enviable position with unconstrained aviation capacity, extensive land holdings and modern infrastructure, all primed for the kind of major passenger and cargo growth which few airports can rival. The overall 1,600-acre site with one of the UK’s longest runways, could facilitate an airport operation equivalent to London Stansted or even London Gatwick in their current forms.

The airport’s Vision Plan outlines how the site would readily accommodate a single Super Terminal capable of accommodating up to 25 million passengers, broadly equivalent to Stansted’s current throughput. The document also demonstrates the wider site is able to accommodate a major business and residential cluster alongside without hindering the airport’s operations.
The future demand for aviation as forecast by the Department for Transport for both passengers and cargo is set to exceed the planned South East expansion. Whilst DSA supports and recognises the need for expansion in the South East, DSA itself presents a natural opportunity for significant further and necessary UK capacity to be unlocked. This opportunity would require considerably lower levels of investment in major infrastructure.

DSA is also strategically located in a central UK position which is ideal to serve the area east of the Pennines, with a potential catchment area stretching far to the south and north through excellent road network links and by potential rail connectivity.

As a former RAF base, DSA benefits from one of the longest runways outside of the South East, measuring over 2,893 metres. DSA can accommodate any aircraft from long-haul passenger to the largest cargo aircraft. Furthermore, DSA has unconstrained airspace which has recently moved to the latest airspace management technology.

Going beyond the masterplan, the previously referenced Vision Plan, will show how a transformational rail scheme could bring services directly to DSA from the East Coast Mainline (ECML).

This, together with the expanded Super Terminal could considerably accelerate passenger growth and development of the site beyond the high growth case envisaged in the masterplan.
A unique catchment

Doncaster Sheffield Airport has the capability to become one of the largest airports in the North of England. The airport serves Yorkshire and the Humber, Derbyshire, North Midlands, Nottinghamshire, Lincolnshire along with other similar areas east of the Pennines.

It has a unique catchment of 5.53 million people generating 8.4 million journeys annually. This includes the Sheffield City Region with a population of 1.9 million people, encompassing Sheffield – England’s fourth largest city – and the boroughs of Doncaster, Rotherham, Barnsley, Chesterfield, Bassetlaw, Bolsover, North East Derbyshire and Derbyshire Dales.

DSA also has one of the largest drive-time populations of all UK regional airports, scoring fifth in the UK, with a larger population within both 45 and 60 minute’s drive-time than many larger airports such as Newcastle, Bristol, Edinburgh, Glasgow and Leeds Bradford.

The wealth of the region’s population is also comparable with the wider UK population and scores higher than many regions for indicators such as disposable income. The large regional population is also ethnically diverse benefitting from sizeable populations from across the globe including the Indian Subcontinent, the Far East and many parts of Eastern Europe.

- Sheffield is England’s fourth largest city, home to 550,000 people with 1.9 million people across the wider Sheffield City Region (SCR)
- The Sheffield City Region also has a £30 billion economy. The Sheffield City Region’s population economic output (GVA) is comparable to that of Northern Ireland
- Yorkshire itself is the UK’s largest county with a population of over 5.3 million people and an economy of £113 billion; both population and GVA are comparable to that of Scotland. Yorkshire’s population is also anticipated to be the fastest growing region within the North of England with +4.6% (increasing to 5.6 million) growth expected by 2024
- A number of major population centres are located within 60 minutes of DSA including Sheffield, Doncaster, Rotherham, Barnsley, Kingston upon Hull, York, Leeds, Wakefield, Bradford, Nottingham, Derby and Lincoln
- Over 8.4 million air journeys are currently created in DSAs total catchment
- There are over 6 million journeys annually ‘leaking’ from the DSA catchment to airports in the North West or South East of England, creating millions of unnecessary journeys or road miles
- According to the Department for Transport, the UK’s Air Traffic demand is expected to increase by 2.4% annually over the long term
- This is expected to create demand of c. 13.7 million journeys annually from DSA’s catchment by 2037
DSA passenger catchment

8.4 million journeys
5.53 million people

Core catchment
5.3 million journeys
3.54 million people

Floating catchment
3.1 million journeys
1.99 million people
A global logistics and air cargo facility

The masterplan shows that DSA is ideally placed to become the next national hub for air freight, with few other airports in a position to do this. The majority of aviation capacity across the UK is devoted to passenger services and few airports are increasing cargo capacity, particularly for scheduled pure freight services. These capacity constraints are also being seen across Europe. DSA is able to substantially develop both passenger and cargo capacity without hindering growth of either in the future. The masterplan sets out the land take for both areas to ensure neither is compromised or limited in any way.

In the long term, DSA has the capacity to enable the UK to compete for a significant increase in European air cargo market share. Aero Centre Yorkshire will provide 5.5 million sq ft of airside and landside cargo, logistics, distribution and manufacturing facilities. This will mean a major increase in cargo handling facilities and the ability to co-locate a whole range of large-scale (regional and national) distribution or fulfilment centres.

There are a number of drivers that support DSA’s ability to deliver this ambition:

– Major integrators and scheduled operators are looking for expansion of capacity

– New entrants into the air express market will increase pressure on airport capacity for European networks and Trans-Atlantic connectivity

– Rationalisation of global freighter fleets and introduction of fuel-efficient aircraft alongside the continued growth of Low Cost Carriers and Higher Density passenger aircraft has improved both the viability and demand for freight only operations

– A continued capacity squeeze at major airports across the UK and Europe, impacting on both available capacity for and the efficiency of cargo operations in major airports
A new place – an Airport City – Aero Centre Yorkshire

DSA lies at the heart of Aero Centre Yorkshire (ACY), a future innovation district.

The site amounts to 1,600 acres of land, with airport operations taking up roughly 800 acres. There are few sites across the UK that provide this scale of integrated opportunity offering true multimodal connectivity and ready assembled contiguous land with modern infrastructure in place. Over 100 businesses are already on site with further phases of ACY being brought online.

Should the full vision for ACY be realised in the masterplan’s high growth scenario, it would see the following delivered:

- 5.5 million sq ft of airside and landside development land and employment space
- £1.6 billion of construction related investment
- £6.5 billion of cumulative GVA to the Sheffield City Region economy alone
- c. 13,000 direct and indirect jobs
- Up to 3,000 new houses
- New central plaza incorporating retail, hotel, food and drink and other uses needed to support a growing living and working community

The site has been recognised as one of the top propositions in the Northern Powerhouse through its inclusion in the UK Government’s Northern Powerhouse Investment Portfolio (2018).

The site offers potential to develop up to 3,000 new homes creating a community with the potential to be connected by road, rail and air and providing access to a diverse employment zone creating high value employment opportunities.

Community facilities will be developed to support the needs of local residents, those employed across the ACY site and airport passengers. Illustrative plans within this masterplan demonstrate how ACY can be developed including hangars, manufacturing units, commercial development, logistics, skills, education and residential.
Building a world-leading MRO campus

The masterplan sets out how we will create clear linkages with Sheffield’s Advanced Manufacturing Innovation District (AMID) harnessing the clear synergies. Central to this will be the creation of a world-leading Maintenance, Repair and Overhaul (MRO) Campus at DSA. A key element of this vision will be establishing at DSA a satellite of the University of Sheffield’s renowned Advanced Manufacturing Research Centre (AMRC). This facility will be branded as MRO 2050, a £25 million initiative being developed by the AMRC.

The Sheffield City region is established globally as a hub for innovation, R&D and advanced manufacturing. MRO 2050 will build on the expertise of the already world-class AMRC to create a test bed to develop new technology to increase quality and efficiency in the MRO sector. The MRO campus will create up to 1 million sq ft of space for aviation and aerospace support facilities.

The facility will also seek to develop world-leading talent and skills for the Advanced Manufacturing and MRO sector while also being a catalyst for inward investment to Aero Centre Yorkshire and the Sheffield City Region. The region’s existing expertise and talent has in recent years encouraged a number of world renowned names to call the region their home including Boeing, Rolls Royce and McLaren.

Deliver wide ranging benefits

The delivery of the DSA masterplan will bring a number of economic benefits to the Sheffield City Region job market and overall economic performance:

- An uplift in Gross Valued Added and economic activity, stimulating new employment and new business creation directly at the airport and across Sheffield City Region, North Nottinghamshire, North Derbyshire and Lincolnshire regions
- An increase in available commercial and residential premises in Sheffield City region
- An increased supply of R&D capacity in SCR, provided through a supporting satellite of the existing AMRC
- Greater diversification in the local and city region-wide economy, with a focus on higher value added and specialist jobs
- A gateway hub for visitors to Sheffield City Region, continuing to provide easy international route services for passengers and cargo
- The provision of a range of quality job opportunities within Doncaster’s labour market, from entry level jobs to specialist positions
What makes DSA different?

- DSA is in a unique position of having the capability and the land holding to facilitate growth of the airport and surrounding employment and living spaces. Each area of the site and component of the masterplan will drive the development of the others.

- DSA's central location and direct motorway access, facilitated by the £56 million link road opened in February 2016 means DSA is well positioned to serve most regions of the UK, with London accessible in just 3.5 hours.

- The airport already has one of the UK's largest regional airport catchment areas by drive time with 5.2 million people living within 60 minutes. This is the fifth largest catchment of all UK regional airports, larger than that of many larger airports including Bristol, Leeds Bradford and Newcastle.

- The airport's immediate surrounding area is not itself densely populated, limiting the environmental impact of airport expansion on nearby residents is likely to be less pronounced than at many other UK airports.

- DSA has the capacity to enable large-scale air cargo growth without impacting on the ability to deliver substantial passenger growth.

- Residential and employment catalyst — the ACY site has the capability to deliver sizeable new residential developments meeting a local and national need in a way which integrates the new residential areas with major employment opportunities in high value and highly skilled sectors.

- ACY already sits within an established home in the Sheffield City Region for large-scale logistics, advanced manufacturing, aerospace and innovation led developments and has national and international distribution facilities located close by.

- The site sits under single ownership of the Peel Group, an experienced land, infrastructure and property developer who have a proven record of delivering transformational projects across the UK. Peel, along with supportive regional partners have the expertise and ability to support businesses investing in the site.

- DSA has the potential to go much further beyond what is envisaged by this already transformational masterplan. The airport and its regional partners share an ambition to provide direct connectivity to the ECML. This would enable the site’s significant economic and aviation potential to be realised and accelerated creating a larger Airport City proposition known as an Aerotropolis.

The most tangible economic benefits will be new jobs created in the labour market and new value added to the economy. It is also anticipated that investment in construction activity to deliver the DSA masterplan will generate direct and indirect employment.

Further economic benefits will then be achieved through business occupancy in the new employment space on the site, residents of the new housing and additional inbound visitors to the region.
3 Vision and objectives
Vision and masterplan objectives

The vision for Doncaster Sheffield Airport is to become the UK’s most outstanding regional airport

The masterplan is one of the key enablers for this vision. Its objectives are to:

- Develop a clear market position, providing an exceptional and high quality passenger experience for both leisure and business travellers

- Develop DSA as a significant UK international gateway, offering a convenient and accessible choice for passengers flying for leisure and business visits throughout Europe and the world. Build upon the existing 45 destinations with an extended range of routes including domestic, European and long-haul.

- Build on DSA’s burgeoning reputation as the UK’s most user-friendly freight airport with first-class cargo facilities complimenting the unique combination of runway length, aviation capacity and available airspace capacity. Accommodate future growth to 176,500 tonnes of cargo movements by 2037, providing a strategic transhipment hub.

- Through growth in the airport and the associated businesses at ACY site maximise the potential as an economic driver and regeneration catalyst in support of the Sheffield City Region LEP and the Northern Powerhouse. Attracting inward investment and employment to the Sheffield City Region with c. 5.5 million sq ft of aviation and non-aviation related commercial employment development across aviation and aerospace, advanced manufacturing, warehousing, distribution and logistics sectors.

- Positively influence and enhance people’s lives through further development of a sustainable residential community surrounding DSA, providing future employees of ACY businesses with the opportunity to live close by, served by an extensive vibrant central plaza of retail, hotel, food and drink and other community facilities.

- Future proof and improve multimodal surface access, making the airport accessible to the current 5.53 million residents living in areas of Yorkshire, Humberside, North Nottinghamshire and Lincolnshire.

- Develop facilities and infrastructure to accommodate future aspirational passenger growth up to 7.2 million passengers by 2037.

- Be a good neighbour by protecting and enhancing the site’s environmental assets, open spaces and landscape quality.

- Encourage strong links with local communities, businesses and users through the Airport Consultative Committee.

- Uphold the highest possible safety standards in accordance with the Civil Aviation Authority requirements and maintain the security and safety of passengers and staff.

- Set out the medium and long term growth plans of the airport in order that these can be taken into account by Local Authorities in preparing their local, economic and transport plans.

- Ensure the airport business is on a firm and sustainable path to profitability. Airports are long-term investments requiring considerable operational and capital expenditure. To date the Peel Group has directly invested £200 million providing an airport for the region.
A collective vision for your airport – how working together will make it a reality

Doncaster Sheffield Airport benefits from widespread support amongst stakeholders, politicians, business and the traveling public. This support is critical for the success of the airport and the Aero Centre Yorkshire site.

A successful airport goes hand in hand with a successful and supportive region. There are countless examples of how partnership working has supported DSA success and growth.
Working in partnership

Local Authorities

DSA works pro-actively and in partnership with all its neighbouring councils, ensuring it is aligned with local strategies and supporting delivery. Doncaster Council, Sheffield Council, Rotherham Council, Barnsley Council, Bassetlaw Council and North Lincolnshire Council.

Sheffield City Region Local Enterprise Partnership and Combined Authority

The Sheffield City Region (SCR) LEP and Combined Authority have identified DSA and the wider Aero Centre Yorkshire as one of their key strategic priority assets. The airport is a recognised growth corridor within the SCR’s integrated infrastructure plan and is an integral component of city region transport and economic strategies.

Transport for the North

DSA is recognised for its strategic role within the North, named as a major economic centre in Transport for the North’s draft Strategic Transport Plan. The Strategic Plan also identifies the role that enhancing rail access to DSA can play as an emerging investment priority to deliver TfN’s Southern Pennines Development Corridor.

Business community

DSA enjoys tremendous support and backing from the region’s business community, backed by all Chambers of Commerce within the SCR and a number of independent business and property forums such as the International Trade Forum, Federation of Small Businesses and the Sheffield Property Association.

Airport Consultative Committee

The Doncaster Sheffield Airport Consultancy Committee is the formal committee in place to facilitate communication between the airport, local public agencies, local business, residential communities and airport users. The committee is independent of the airport and includes representation from all parishes across the local area. The committee has been facilitated by South Yorkshire Joint Authorities Governance Unit since 2005. The committee is a key sounding board for the airport to ensure all plans and developments align to the community it serves.
Friends of Doncaster Sheffield Airport (FODSA)

A demonstration of the power of public support for DSA would be the group known as FODSA, the group’s journey to support the success of our region’s airport began many years before the airport opened its doors.

FODSA rallied around to raise awareness, drive interest, lobby politicians, the media and public, fully backing the Peel Group’s vision to transform RAF Finningley into the new commercial airport it has already become. The passion and enthusiasm of FODSA didn’t stop when DSA opened its doors in 2005.

Today FODSA continue to offer support for the airport’s future as customer service ambassadors who meet and greet our valued passengers, helpfully directing them through the terminal and getting them on their way quickly and easily.

Doncaster Sheffield Airport and the Peel Group would like to express their thanks and recognition to the many partners and stakeholders, of which there are too many to mention but collectively all play a crucial role in where we are today and to reach our shared vision.
4 Development context
How the development of DSA meets national, regional and local strategic needs

Development of new major infrastructure assets such as airports cannot be achieved in isolation by the sole owner, nor can they reach maturity quickly. To be delivered successfully, they need to be developed in phases over time and be clearly aligned with regional and local strategies, which themselves need to be developed in partnership with stakeholders. National policy must also be taken into account.

This section provides an overview of the following relevant context documents which have informed the masterplan:

- National policy
- Pan-Northern policy
- Regional strategies
- Local policy

National policy

National Infrastructure Delivery Plan 2016–2021. The National Infrastructure Delivery Plan (NIDP) outlines the government’s national plans for infrastructure investment over the next five years. It emphasises the crucial role of high quality infrastructure in delivering productivity improvements and boosting international competitiveness, in turn creating economic growth and new jobs.

Airports are recognised as key to supporting domestic, international trade and investment. The government’s objectives are to ensure that the UK’s air links continue to make it one of the best-connected countries in the world.

On a regional scale, the NIDP recognises the role of infrastructure in unlocking economic potential and rebalancing the economy.

National Aviation Policy

The Aviation Policy Framework came into force in March 2013, replacing the Air Transport White Paper of 2003. The Framework establishes the benefits of aviation to the UK economy and emphasises the growth of regional airports outside of London. It is underpinned by two core principles of collaboration and transparency. It outlines the need for balance between airports supporting growth and dealing with the costs of aviation, including noise and climate change. Airports are recognised as a key means of securing growth as they attract investment to an area, create jobs and provide international connectivity.

Relevance to DSA: the Framework has guided the creation of the DSA masterplan, targeting significant and beneficial growth whilst identifying that all environmental issues are or will be given due consideration at the appropriate stage of the planning process and stakeholders are involved on a collaborative basis.
Aviation Strategy 2018

The government has identified the need for a new Aviation Strategy for the UK, in which it will set out the long-term direction for the aviation sector for 2050 and beyond. The strategy will look at where governments can and potentially should play an active role in the aviation sector. A final Aviation Strategy is due to be published by the end of 2018.

The strategy’s call for evidence cites the importance of the air transport and aerospace sector to the UK and the key role performed by airports in attracting inward investment by concentrating economic activity. The government also recognises the role of regional connectivity to support sustainable economic growth, the need to best utilise existing capacity and the importance of air freight in supporting UK international trade.

Davies Commission

In September 2012, an independent Airports Commission was tasked with identifying and recommending to the government, the options for maintaining the country’s status as an international hub for aviation. The report states that delivering new capacity up to 2030 will be crucial to the objective.

The Commission recommends:

“That both national and local government recognise the crucial importance that regional airports will play in growing the nation's connectivity and economy in the coming decade, and takes this into account in future policy and planning decisions that pertain to those airports”.

The report also notes the importance of government measures in supporting regional airports such as establishing enterprise zones in the environs of airports, and strengthening partnerships between airports, LEPs, tourism organisations and local authorities.

National Planning Policy Framework (NPPF)

The NPPF was adopted in March 2012. It sets out the government’s planning policies for England and outlines how these should be applied.

At the heart of the NPPF is a presumption in favour of sustainable development. The NPPF sets out the economic, social and environmental dimensions of sustainable development and states that planning should encourage economic growth rather than impede it. It states that planning should:

“proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs.”

Plan makers must have regard to the contents and themes of the NPPF in producing plans. The NPPF states that local planning authorities should take a collaborative approach to planning, particularly regarding issues which cross administrative boundaries. It encourages collaboration to provide viable infrastructure to support sustainable development, including airports. The Framework is an important material consideration in plan making and decisions on applications.

Relevance to DSA: the NPPF provides a sound policy basis which is fully supportive of infrastructure planning and sustainable development. In accordance with this, the masterplan has been prepared in consultation with the Local Planning Authority, with due regard to the emerging Doncaster Local Plan and other forthcoming developments in the area.

Relevance to DSA: the Commission highlights the importance of providing new capacity at airports, the approach for DSA has been informed by the preparation of new forecasts. Further to this the masterplan has incorporated an enterprise zone and strong stakeholder relationships.
Northern Powerhouse

The Northern Powerhouse is an initiative to improve the economy of the North of England and bring its performance closer to the performance of London and the South East. Transport investment is a major pillar, and improvement of provision across all transport modes is seen as a significant means of boosting economic performance.

DSA is one of the major transport assets within the North. It benefits from significant latent capacity which is under-utilised. Taking advantage of this capacity can be a key enabler to achieving the Northern Powerhouse’s ambition. The Peel Group fully supports the objectives of the Northern Powerhouse and is a member of the Cabinet Office Northern Powerhouse Partnership Programme.

In 2016 Peel launched ‘Peel in the Northern Powerhouse’, a statement of commitment to partnership in helping deliver the Northern Powerhouse.

It features 150 projects across the North of England which can be part of the economic and social transformation which Government seeks. One of these 150 projects is the continued planned expansion of DSA. Peel has a track record of working with partners from multiple sectors to build on economic catalysts such as DSA.
Independent International Connectivity Commission

The Independent International Connectivity Commission (IICC) was established to examine the economic role of international connectivity for the North of England. It reported in 2017 with an assessment of the current role of the North’s airports and ports in providing the required global connectivity for passengers and freight.

It recommends that Transport for the North should support the Sheffield City Region LEP to pursue better surface access to DSA through improved rail connectivity. The report also highlights the importance of recognising the role of airports as growth clusters and that infrastructure supporting surface access to them plays a role in supporting the growth of business and services around airports.

The report also identifies that there is a distinct market for businesses to cluster around international airports. Under the heading ‘Airports and Sea Ports as Economic Clusters’, the report references that over and above their role in providing vital connectivity, airports and ports are important economic clusters, delivering jobs and GVA. The report goes on to explain that airports have the potential to position themselves as wider economic hubs, supporting the attraction of investment whether through activities related to the core airport business such as aircraft maintenance or logistics, or more general business activities, benefitting companies from locating immediately adjacent to an airport.

The report then draws the conclusion that these clusters can add significant economic value and that this is typically acknowledged locally through the planning system, for example by granting approval on land adjacent to airports for a broad range of economic uses to ensure that such benefits can be realised.

Transport for the North

From the 1 April, 2018, Transport for the North (TfN) will become England’s first sub national statutory transport body formed to identify and plan the transport infrastructure required for the North to drive economic growth. TfN has recently produced its Strategic Transport Plan (STP) setting out a 30-year plan explaining the need for investment in transport and identifying priority areas for improved connectivity.

The draft STP Position Statement identifies two key strategic development corridors relevant to DSA: ‘East Coast to Scotland’ and ‘Southern Pennines’.

The development corridors link important ‘prime capability’ assets and important economic centres that are currently in need of improved connectivity. The Position Statement specifically references DSA within the Southern Pennines Corridor in recognition of its growth aspirations and need for enhanced rail access.

“Enhancing the movement of both people and goods is vital to supporting economic growth and Doncaster Sheffield Airport is well placed to support improvements in both passenger travel and in freight and logistics.”

John Cridland, Chair of Transport for the North
Regional strategies

Sheffield City Region Transport Strategy (2011–2026)

The Sheffield City Region Transport Strategy 2011–2026 was published in April 2011. It recognises the success of the airport as a transport and employment hub and a key priority in the city region.

The strategy recognises the airport as the city region’s primary international gateway and a source of development opportunities for related businesses. The strategy aims to enhance these through improved access by road and public transport. It is also noted that the airport has attracted activity in highly specialised sectors such as training in aircraft maintenance.

The strategy notes that the city region’s links to overseas opportunities are weakened by the lack of a rail service to the airport. It seeks to further develop public transport links to provide an attractive alternative to car travel. This will include a rail link with services to all the city region’s major towns. It also supports FARRRS (Great Yorkshire Way) as a catalyst for growth in the areas around the airport.

Sheffield City Region Transport Strategy Update (2018–2040)

In May 2017, the SCR Transport Prospectus was published as a precursor to a full Transport Strategy update. The prospectus states in respect of DSA:

“we will work in partnership with Doncaster Metropolitan Borough Council, private developers and service operators, to deliver improved bus services and a new rail connection and station providing connectivity to the ECML.”

The draft SCR Transport Strategy (2018) reaffirmed this commitment and highlighted the importance of the region to focus on existing assets and in particular DSA and the growing developments surrounding it.

“We will also deliver Phase 2 of the Great Yorkshire Way project, which will complete the direct highway connection from the M18, the first phase of which opened in 2016.

We are in an excellent position to capitalise on our existing assets to achieve this, in particular, Doncaster Sheffield Airport and the growing developments surrounding it. We will improve our multi-modal and integrated transport connections to the airport so that our businesses and people can access it faster, easier and more sustainably.”

SCR LEP Strategic Economic Plan (2014)

The Sheffield City Region (SCR) Strategic Economic Plan (SEP) sets an ambitious target to increase GVA within the City Region by £3.1 billion by 2025. Achieving this ambition will strengthen SCR’s contribution to the national economy and its role within the Northern Powerhouse. It targets 70,000 net additional jobs within SCR and it identifies seven long term spatial areas of growth and change where a significant proportion of growth is expected to occur.

One of the seven SCR areas of growth and change so identified is the Doncaster Sheffield Airport corridor which is:

“Recognised as a catalyst for business development, inward investment and job creation with regard to logistic, engineering and associated aviation activities.”
SCR LEP Integrated Infrastructure Plan

To support the SCR SEP, an Integrated Infrastructure Plan (IIP) was published in November 2016. The IIP articulates and evidences required infrastructure requirements linked to supporting the economic priority areas identified in the SEP. To focus investment, the IIP identifies four regional strategic spatial priorities:

- Growth of the Advanced Manufacturing Innovation District
- Provide growth and enhance the role of DSA and the surrounding area
- Maximise the benefits of HS2 in the Sheffield City Region
- Stimulate growth and regeneration in town and city centres

DSA is then specifically and expressly identified as a growth area which is currently being developed as an engineering and aero-industry centre alongside and including housing growth. The IIP encourages Spatial Frameworks to be prepared to identify strategic areas of future housing delivery aligned with the ambitions of the Growth Areas and Urban Centres – this should include strategic opportunities for housing as an integrated element of Growth Areas.

The IIP therefore identifies the following high level indication of an infrastructure package for DSA:

`Doncaster Sheffield Airport Surface Access and Onsite Airside Infrastructure`

DSA is identified as a growth area which is currently being developed as an engineering and aero-industry centre, alongside and including housing growth. DSA can benefit from further improvements to surface access, in the form of:

- Improved bus services including express services to Sheffield and Doncaster centres
- Better rail connectivity through a future community rail station at Hayfield Lane and connectivity to ECML and HS2

This would permit greater access to DSA via the Doncaster – Lincoln Line or East Coast Mainline and would help unlock European labour markets.

DSA suffers from acute cargo capacity constraints and urgently needs new transit shed facilities with associated taxi-ways and aprons. Similarly, dedicated vehicular access from the south off the A638 is needed to provide access to planned transit sheds and landside logistics.

The LEP notes that infrastructure investment opportunities in the city region total a possible £28 billion. Suggested initiatives for DSA and the surrounding area include providing the airport’s rail connectivity, overcoming capacity constraints including at Doncaster railway station, providing large industrial buildings to support aviation and engineering businesses, and providing new infrastructure such as freight.

It is anticipated that of the desired 70,000 new jobs in the city region, around 30,000 will be at a higher skills level and this includes within the aviation industry. The logistics sector is forecast to grow and develop considerably over the next ten years and DSA is strongly positioned to support this change. Given the quality of the employment land supply, and the major proposed developments around transport facilities such as DSA, Doncaster could generate more than the forecast level of logistics and transport related growth.

Relevance to DSA: the LEP supports the development of DSA as a top strategic priority, particularly for aviation and logistics industries. The aspirational job growth targets are well aligned with the masterplan vision for development of the estate.
Local policy

Doncaster Core Strategy

The airport lies within the Metropolitan Borough of Doncaster. Doncaster is currently in the process of drafting a new Local Plan, which will supersede the Doncaster Core Strategy 2011–2028 which was adopted in May 2012. Until the new Local Plan is adopted, the Local Development Framework (including the Core Strategy) forms the development plan for Doncaster.

The Core Strategy sets out the vision, objectives and policies for development. It recognises the role of DSA in supporting the local and regional economy. Although the Core Strategy pre-dates the International Connectivity Report and the SCR Regional Economic and Integrated Infrastructure Plans, it still cites the airport as a regionally significant investment priority which supports greater economic growth and diversification in Doncaster and the wider region. It also references the fact that the airport contributes to Doncaster’s strategic position in the national transport network.

Objective 3 of the Core Strategy aims to make best use of Doncaster’s transport links, including the airport, to stimulate economic growth particularly in the education, digital, communications and logistics sectors.

Policy CS6 of the Core Strategy specifically relates to the airport and sets out that growth and investment will be supported in accordance with the principles set out below:

a. The airport is a multi-modal transport interchange offering improved international air passenger and freight services to the region with a range of connected sites to provide for business development related to the airport incorporating training facilities.

b. There is improved access to the airport, including FARRRS and a railway station, to enable easy access from the borough, Sheffield City Region and the wider region.

c. Westward expansion of the business parks alongside the airport access road, and airfreight and maintenance repair operation facilities, will be supported around the southern end of the runway.

d. Proposals will be supported where:

1. Environmental impacts are adequately mitigated, including improved landscaping and tree planting, and a Quiet Operations Policy;

2. There will be no detrimental impacts on the conservation objectives of Thorne and Hatfield Moors, particularly the lowland raised mire habitat and nightjar populations;

3. A surface access strategy is developed to make best use of surface access infrastructure including access to neighbouring districts, mainline rail services and providing a wide choice of travel modes to the services and jobs at the airport;

4. There are training and recruitment plans that will assist delivery of improved skills and economic development, particularly for local people;

5. On site car parking provision is sufficient to avoid the need for offsite car parks;

6. Safeguarding Areas and Public Safety Zones are maintained to enable the airport to operate safely;

7. Buildings, layout and landscaping are of high quality; and;

8. Uses are required to support air services passengers and businesses at the airport e.g. hotel.

Relevance to DSA: the Core Strategy recognises DSA’s role in developing a strong, diverse economy for Doncaster. The principles of Policy CS6 have informed the masterplan and will help ensure that forthcoming proposals, including to increase permitted aircraft movements, are appropriately assessed and justified when they are considered in the planning process.
Doncaster Local Plan

Doncaster Council is currently preparing a new Local Plan that will supersede the Core Strategy and Unitary Development Plan.

The Local Plan will set out the amount and location of new development across the borough in the period up to 2032. Consultation took place on an Issues and Options document in summer 2015 and publication/submission of the final document is expected in the first half of 2018.

The emerging Doncaster Local Plan recognises the importance of DSA as a mixed use, sustainable growth hub. The Issues and Options publication cited the improved connectivity provided by FARRRS, which should facilitate increased flights and destinations and growth of airport-related businesses. All three of the proposed growth options included the airport as a strategic employment location.

Relevance to DSA: the identification of the airport as a strategic employment location and growth hub supports the aspirations set out within the masterplan to create a sustainable, mixed use settlement.
5 The airport today
The airport today

Doncaster Sheffield Airport is one of the fastest growing airports in the UK and was voted 2017 Best Small Airport in the UK under 10 million passengers as voted by consumer group Which?. It is a major employer supporting over 1,000 jobs.

The airport serves passengers from Yorkshire, Humberside, North Nottinghamshire, Lincolnshire and beyond, including Sheffield, England’s fourth largest city.

In 2017 the airport had a record-breaking year, with its busiest year on record for passengers and cargo, at 1.23 million passengers and 10,000 tonnes respectively.

At only twelve years old, the airport benefits from outstanding modern facilities both inside and out of the terminal building, spacious departure lounge, on-site parking immediately adjacent to the terminal building and robust airside infrastructure.

The current planning consent for the airport limits aircraft movements to 57,000 with the airport having seen an average of 16,000 movements per year over the last three years.

Growth beyond these numbers will require further planning consent which is supported in principle within the Doncaster Core Strategy, subject to satisfying the criteria within Core Strategy Policy CS6(d), including in respect of environmental considerations.

This will require the associated planning applications to include appropriate assessments of the impact on the immediate locality and wider areas and designations, based on up to date baseline surveys.
Located in South Yorkshire, Doncaster is an important transport and logistics hub in the UK, close to the boundary between Yorkshire and North Nottinghamshire and at the heart of the UK’s major motorway network.

The airport is directly connected to the M18 by the Great Yorkshire Way link road, completed in spring 2018 delivering a transformative improvement in access. The M18 links quickly and directly to the M1, A1(M), M180 and M62.

The area is steeped in history – Doncaster is known for its role in the story of flight in 1909, construction of the Flying Scotsman, home to the RAF until 1996 and the region had strong mining communities into the 80s.

Sheffield is known as the undisputed iron and steel capital of the world. Sheffield’s association with metalworking is almost as old as the city itself dating back more than 700 years DSA is located within just 30 miles of the stunning Peak District national park.

Today the town of Doncaster and city of Sheffield are enjoying considerable regeneration attracting global industry and seeing major development such as the establishment of the HS2 rail college, iPort and the Advanced Manufacturing Innovation District.

These developments have seen major inward investment with the likes of McLaren, Boeing, Rolls Royce and Amazon locating within the region. Sheffield is now a world leader in Advanced Manufacturing, Research and Development, providing expertise to the aeronautical industries sector, amongst others.
Like many other regional airports, the 2008 financial crisis had a heavy impact with traffic ultimately falling to under 700,000 passengers per annum in FY13/14. This decline was driven largely by falling demand across Europe, mergers and airline failure and a consolidation of services to larger airports.

However, since 2013/14 and following the Peel Group’s reacquisition of DSA, passenger traffic has recovered strongly. Today, the airport currently offers flights to some 45 destinations across the UK and Europe. The majority of DSA’s current passenger traffic is delivered by three key airline and tour operator partners, TUI / First Choice, Wizz Air and Flybe.

TUI were the airport’s launch partner, announcing in 2004 services which commenced as the airport opened in 2005. TUI provides package holidays to destinations across Europe, offering almost 500,000 seats annually with year-round operations. TUI bases aircraft at DSA year-round, with an accompanying crew base. DSA has one of TUI’s largest winter operations from the UK regions.

TUI / First Choice offer customers access to a range of exclusive holiday products including Sensatori, Sensimar, Holiday Village and Marella Cruises.

Wizz Air began operations in 2006 with services to Katowice, Poland and added services to Gdansk shortly after. Over the last 12 years, DSA has become Wizz Air’s largest UK operation outside of London Luton and now offers services to 9 destinations across Central and Eastern Europe (CEE) including Bucharest, Warsaw and Riga. These services support the region’s large CEE community and a diverse range of passenger traffic including business travellers. Wizz Air are Central and Eastern Europe’s largest airline and carry over 28 million passengers annually.

DSA passenger aviation

Opening in April 2005, the airport quickly reached one million passengers per annum within its first full financial year FY06/07.
Flybe, Europe’s largest regional airline have operated ad-hoc services since 2006 including flights to Belfast and Jersey, but in March 2016 launched regular operations to 10 destinations across the UK and Europe, providing much needed low cost capacity to city and leisure destinations. It was the largest single airline announcement since the airport opened and delivered an additional 500,000 annual seats. Flybe have aircraft based at DSA year-round, including a new crew base and operate services to the major hubs of Amsterdam, Paris and Dublin, all offering the opportunity for onward connectivity.

DSA also welcomes passengers from a range of tour operators including Balkan Holidays, Channel Islands Travel Service, Crystal Ski and Transun.

Recent growth, driven by new services from Flybe and the continued growth of TUI and Wizz Air including both frequency growth to existing destinations and the addition of new services, have increased traffic levels to c. 1.23 million passengers per annum.

During FY 16/17 DSA was the fastest growing airport in the UK and one of the fastest growing airports in Europe. Growth between FY13/14 and the present day has seen passenger traffic increase by 88%.
Top 10 routes by passengers in 2017

<table>
<thead>
<tr>
<th>Route</th>
<th>Country</th>
<th>2017 passengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gdansk</td>
<td>Poland</td>
<td>78,588</td>
</tr>
<tr>
<td>Katowice</td>
<td>Poland</td>
<td>75,515</td>
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<tr>
<td>Alicante</td>
<td>Spain</td>
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<tr>
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<td>52,420</td>
</tr>
<tr>
<td>Tenerife</td>
<td>Spain</td>
<td>48,065</td>
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DSA cargo aviation

Whilst the overall size of the UK air cargo market has not changed in the last decade, there have been underlying structural changes in the methods used to transport goods and products. Since opening in 2005, cargo tonnage handled at DSA was for many years comparatively low. However, in 2012 DSA increased the focus on air cargo, including the appointment of a new Transit Shed Operator, Doncaster based Anglo World Cargo, who expanded their road haulage business into air freight.

Following the re-acquisition of DSA by the Peel Group in January 2013, this increased focus on cargo continued and was accelerated with the appointment of a dedicated Cargo Development team and further investment in infrastructure and equipment. As a result of these strategic interventions, cargo throughput has grown considerably.

The airport has focused on developing its air cargo capability and over recent years developed a reputation for offering flexible and efficient solutions to the cargo market. The airport has developed cargo traffic from across multiple market sectors with a broad range of freight operators utilising the airport for a diverse array of cargo.

The airport now has an established position in the ad-hoc cargo market based on its ability to offer a simple and effective cargo operation. In the last 12 months, the airport has moved on further in the market to establish scheduled cargo traffic and currently handles three weekly scheduled wide body cargo services from Nairobi delivering perishable goods into the UK market.

During 2016/17 DSA saw the highest tonnage of cargo at the airport with 9,500 tonnes handled over the year driven by an increase in regular ad-hoc cargo services and a one-off facilitation of DHL weekend services across November and December 2016. The airport is expected to consolidate this position during FY17/18 as a result of the introduction of scheduled services.

Cargo throughput has now outgrown the existing 12,000 sq ft transit shed. An investment programme in the existing facility is underway to deliver a fully equipped 50,000 sq ft transit shed facility in spring 2018. This expansion will enable a significant increase in capacity, facilitating throughput of up to 50,000 tonnes of freight per annum.
Aero Centre Yorkshire

The wider Aero Centre Yorkshire (ACY) estate centred around DSA, offers both airside and landside development opportunities.

The landside opportunities extend to an 800-acre land bank, free of major restrictions to development such as green belt or flood risk. The amount and availability of land can accommodate major companies with the ready-made opportunity for co-location of supply chain and other related companies and operations.

DSA itself is a full service international airport, with unconstrained airspace, capable of handling any aircraft and operating 24/7, 365 days a year. It is therefore a highly attractive operational location for aviation linked businesses.

ACY’s transport, utilities and other infrastructure are future proofed to provide significant expansion potential. The site is already home to over 100 businesses with major tenants including Cessna Textron’s UK Service Centre, 2Excel, National Police Air Service and Redline Assured Security.

ACY’s central UK location offers true multi-modal connectivity, with excellent rail links, direct motorway access, close proximity to the UK’s largest ports and direct air connectivity for both passengers and cargo.

A number of major retail, distribution and logistics companies choose this region as their distribution base given this multi-modal connectivity.

Such companies include, Amazon, Asda, ASOS, B&Q, BMW, IKEA, Marks & Spencer, Next, Norbert Dentressangle, and TNT. Existing rail links include the Freightliner operated Doncaster Rail Port from where four freight services per day run to Felixstowe and the South Coast ports.

ACY sits within Sheffield City Region, a well-established home for advanced manufacturing and related supply chains led by the UK’s leading engineering research centre – the Advanced Manufacturing Research Centre (AMRC). The AMRC is a 550,000 sq ft world-renowned centre for advanced machining and materials research. Boeing are already on site alongside Rolls Royce whose aerospace blade casting facility manufactures turbine blades. McLaren are also now in the process of locating at the site.

The potential for an AMRC satellite facility at ACY has already been recognised by the University of Sheffield. Plans are underway to bring this development to fruition. ACY is just 25 minutes by road from the AMRC and offers the land and capability to host the satellite facility, alongside the existing aviation cluster at DSA.
1. MRO Campus and Innovation District
2. Landside Advanced Manufacturing and Logistics
3. Global Air Cargo Campus
4. Residential zones
5. Central plaza of retail, hotel, food and beverage and other supporting facilities
Airport history and development

1936 RAF Finningley established
1955 Airfield upgraded, main runway expanded to current length
1996 RAF Finningley decommissioned
1999 Peel Airports Ltd purchase the site from DEO following a successful bidding process for development proposals
1999 5,000 people attend Peel’s public consultation exhibition showing the proposed masterplan for the airport
1999 Peel submit a planning application to DMBC for a commercial airport with airport related business, leisure and associated facilities as well as the residential development of the former RAF residential accommodation
2004 Following grant of planning consent at a Public Inquiry, £80 million is invested in the construction of the airport including a state of the art terminal building, access roads, car parking and public transport facilities
2005 Construction is completed including a new terminal building, airfield infrastructure and car parking facilities
2005 Passenger services launch at DSA, with Thomsonfly and Thomson Holidays flying to 11 scheduled destinations and 16 charter destinations, and Ryanair offering a daily service to Dublin
2006 Wizz Air, one of Europe’s newest airlines, commenced services to Katowice, Poland
2007 Directions Finningley launches a National Aerospace Academy, a centre of excellence for aviation training and a Maintenance and Repair Overhaul (MRO) facility
2008 The former Officers’ Quarters building on Sixth Avenue is converted into Hill House School, a coeducational independent school for pupils aged 3 to 18
2008 Ramada Encore hotel opens on First Avenue, with over 100 bedrooms
2008 The dual carriageway airport access road opened, ultimately becoming the first phase of the airport’s improved access to the M18
2010 Vantage Airport Group purchased a majority stake in the airport (65%) assuming the operation of the airport. Peel retained the remaining 35% as an investor
2011 The country’s last Vulcan bomber, the Avro Vulcan XH558 (G-VLCN) ‘The Spirit of Great Britain’ is relocated to DSA in the first step towards establishing the Vulcan Aviation Academy and Heritage Centre
2011 Phase 2 of the airport business park is approved, covering approximately 22 hectares
2013 Phase 3 of the airport business parks is approved
2013 Peel acquires Vantage majority stake to assume full ownership of DSA
2014 10 hectares of the phase 2 business park site becomes part of Sheffield City Region Enterprise Zone, one of only six Enterprise Zones in England that are able to offer enhanced capital allowances to businesses making significant capital investments in plant and machinery.

2014 SCR SEP identifies DSA as a priority for the City Region (2015–2025) as a spatial area for growth and change, providing a catalyst for business development, inward investment and job creation.

2015 (May) The first phase of 41 self-contained Workpods open at Fountain Court on Hayfield Lane, creating more than 130 jobs.

2015 (Nov) The airport's cargo activities significantly increase, with a total of 3,201 tonnes handled in 2015.

2015 (Nov) Flybe announce the launch of new weekly departures from DSA to Amsterdam, Berlin, Paris, Jersey, Newquay, Faro, Malaga and Alicante. The flights will see the airport serve over 45 destinations.

2015 (Dec) Aero Centre Yorkshire is launched by Peel, comprising the entire 1,600-acre estate and marketed as a prime location for business and development – "Aero Centre Yorkshire will be an enviable central location with motorways, sea ports and airside access to one of the longest runways in the country. It offers a wide range of land and property opportunities for businesses of all types and sizes from across the globe." (Steve Gill, Chief Executive DSA)

2015 (Nov) The world’s largest aircraft, the Antonov-225 visits DSA for the second time in 12 months.

2016 (Feb) FARRRS phase 1, named the Great Yorkshire Way, opens providing a direct link from the Junction 3 of the M18 to Parrot’s Corner. Flybe commences operations.

2016 (Sep) Direct express bus service to the airport from Doncaster Interchange is launched.

2017 Flybe, Wizz Air and TUI continue to add new routes to DSA including Belfast, Hurghada and Naples.

2017 (Mar) DSA becomes the fastest growing airport in the UK and one of the fastest growing in Europe. The airport handles record passenger and cargo traffic.

2017 (Jun) The airport secures its first ever scheduled freighter services as services from Nairobi, Kenya are established.

2017 (Aug) DSA is once again named the UK’s Best Airport (under 10 million passengers) by Which? Magazine.

2017 (Sep) The Sheffield Arena becomes the FlyDSA Arena following the announcement of new partnership.

2017 Express bus service to the airport from Sheffield City Centre is launched.

2018 (Spring) FARRRS phase 2 due to open, completing the link from the M18 through to the airport.
6 The future of the airport
The future of the airport

Forecasts for future growth to 2037

The below forecasts demonstrate the long-term rationale for projections of passenger traffic and cargo tonnage over the next twenty years as DSA delivers its aim of becoming a major mixed use aviation facility incorporating passenger, cargo and business and general aviation activity.

The methodology of growth forecasts

DSA has partnered with Aviation Economics to produce a series of independently developed long term passenger and air cargo forecasts for the period 2017–2037. These forecasts account for continued growth of passenger and cargo activity at DSA taking a broad range of macro-economic factors into account. These indicators demonstrate that the number of passengers and the amount of cargo accommodated by DSA, have the potential to grow significantly up to 2037 and beyond.

These factors include:

- Regional and UK economic growth
- Population growth
- Aviation market demand growth
- UK aviation capacity and market share

Forecasts have been developed looking across the short, medium and long term and varying approaches have been taken to develop the outcomes:

- Short term passenger forecasts for the period FY2018–FY2020. They are based on assumptions around frequency increases, new destinations added, based on an assessment of catchment market demand and airline network gaps, along with benchmarking against peer airport route networks.

- The medium-term period is 2020–2025. Passenger forecasts have been generated using a combination of bottom-up analysis of the existing demand within the DSA catchment and a top down analysis of passenger growth predictions within the DSA catchment.

- Long term passenger forecasts use assumptions of DSA’s future market share on a route basis. Growth in the DSA catchment share for each destination by zone is assumed and guided by the profiles of similar routes from DSA and benchmarking against the catchment share of competing airports.

- The cargo traffic forecast has been developed based around the airport’s current and expected traffic levels in the short term and the impact of capacity constraints, anticipated market trends, changing market requirements and industry forecasts over the medium to long term.
These forecasts have been used to inform the need for additional and improved physical infrastructure affecting both landside and airside areas. In terms of necessary land take, the high case scenario for both passenger and cargo growth throughput has been assumed, to provide for the appropriate infrastructure, safeguards and interventions needed to accommodate the high case for both these key areas of the aviation business. This ensures maximum flexibility within the masterplan period and beyond.

It should be noted that forecasting long term traffic behaviour at individual airports is challenging and the relative lack of historic information for DSA given it is relatively young for an airport at just 12 years old, makes long term trends even more difficult to predict. As a result, two alternative growth scenarios have been developed, a core and a high case scenario.

Long term trends are generally more predictable based on longer term economic forecasts. However, the UK’s anticipated withdrawal from the EU in March 2019 following the 2016 referendum on the UK’s future membership of the EU provides significant uncertainty for the air transport market due to its potential impact on economic growth, traffic and trade rights, border control, immigration and foreign exchange rates.

What has changed since the last masterplan?

Since the last airport masterplan, much has changed in the economic and aviation landscape, largely as a result of the 2008 global financial crisis which resulted in recession and low growth economic conditions. Many developed nations endured an inevitable reduction in demand across all aviation sectors.

DSA, like most UK airports was significantly impacted during this period but particularly so given that the airport opened just three years before the crisis started, just as it was beginning to establish itself in the market.

This period saw a heavy reduction in demand across both passenger and cargo traffic driven by reduced economic activity in most developed economies. In the UK, passenger traffic fell from a high of almost 240 million in 2007 to below 210 million in 2010. It took seven years for traffic levels to recover, as UK totals passed 240 million in 2014.

During this time, the industry saw a period of significant consolidation and airline failure. In the UK alone, there were mergers or takeovers involving Thomson and First Choice, Thomas Cook and MyTravel, GB Airways and EasyJet and the bmi group and BA. Failures in the same period included XL Airways, Zoom, FlyGlobespan and Silverjet.

When traffic did recover, airlines consolidated traffic at major airports with the UK’s top ten airports accounting for a greater share of traffic than before the recession. Despite overall UK traffic levels recovering in 2014, passenger numbers at airports outside the top ten airports fell from 41.3 million to 34.6 million. A number of UK airports also closed to commercial passenger traffic during the period including Blackpool, Coventry, Manston and Plymouth. In addition, Cardiff and Prestwick have been nationalised by the Welsh and Scottish Governments respectively, having previously been operated by the private sector.

However, DSA has recovered strongly in recent years, experiencing significant growth to its current throughput levels of 1.23 million passengers delivering 88% growth since 2013/14 and growing faster than both the market and many other regional airports.
The passenger growth opportunity

DSAs independently produced and assessed unique catchment area, encapsulating large areas of Yorkshire and the North Midlands, is home to 5 million people and already generates in excess of 8.4 million air passenger journeys annually.

A unique ‘core and floating’ catchment for passenger forecasting has been developed by industry experts RDC/Aviation Economics, taking into account journey times to DSA vs competing airports along with current market share from places across the catchment area.

The catchment is centred on the Sheffield City Region, a region with 1.8 million people and a £30 billion economy. Yorkshire itself is the UK’s largest county with a population of over 5.3 million people and an economy of £113 billion. Yorkshire’s population is also anticipated to be the fastest growing region within the North of England with +4.6% (to 5.6 million) growth expected by 2024.

Growth in passenger traffic is therefore expected to result from both increased demand and greater levels of market penetration from within and beyond the catchment area. Increased demand is expected to be delivered as a result of growth in both the population base and strength of the regional economy. To an extent, this increased demand becomes self-perpetuating for the airport as enhanced connectivity delivered by growth in airline capacity and route network available from DSA will play a part in fuelling the attractiveness of the catchment as a place to live, work, visit and invest.

The current levels of passenger leakage from the DSA region are largely a result of a historic lack of air service provision in the region. Sheffield has historically been the largest UK city without convenient access to a major airport. In addition, Yorkshire as a region, is similarly underserved by air services given the size of its population.

This is evidenced by the significant levels of surface leakage from the region to airports in the North West and South East of England, currently at c. 6 million journeys, this level of surface leakage contributes millions of unnecessary journeys and road miles.

As air service provision is improved by the addition of capacity, destinations, frequency and competition, it is expected that the level of market penetration that DSA achieves across its core and floating catchment areas will increase from 15% to 33% in the core growth scenario and 15% to 51% in the high growth scenario by 2037.

DSA currently attracts 19% of its passenger traffic from areas outside the core and floating catchment; it is expected that DSA will continue to increase the volume of traffic that it draws from such areas. The availability of low cost carrier capacity, varied destinations and long-haul provision are all key drivers in expanding the airport’s passenger footprint.

DSA’s growth forecasts remain ambitious and the airport company is seeking to deliver significant growth to rebalance supply with the significant regional demand, thereby reducing leakage to airports outside the catchment. The airport’s location, current and future surface access connectivity, quality of facilities, associated passenger experience, operational capability and space mean that DSA has all the key enabling attributes to deliver this growth.
Passenger origin by region

- Yorkshire and the Humber: 75%
- East Midlands: 19%
- North East: 4%
- North West: 2%
- West Midlands: 1%

Doncaster Sheffield Airport – masterplan 2018–2037
Passenger traffic forecasts

According to the DfT, the UK’s Passenger Air Traffic demand is expected to increase by c. 2.4% per annum over the long term. This is expected to grow demand within the established core and floating catchment from 8.4 million journeys per annum now to around 14.2 million journeys per annum by 2037.

Aviation Economics have assessed two forecast scenarios – core growth and high growth forecasts. These have been selected as they reflect DSA’s enabling attributes to deliver growth at a national scale.

### CORE GROWTH SCENARIO

- Passenger traffic grows to c. 4.6mppa by 2037 (compound annual growth rate of 6.8%)
- This scenario assumes growth from all existing carriers, along with the addition of a Low Cost Carrier (LCC) base in the early 2020’s

This is supplemented by the development of a global network carrier service via a European hub airport and a number of niche long-haul services

### HIGH GROWTH SCENARIO

- Passenger traffic grows to c. 7.2mppa by 2037 (compound annual growth rate of 9.1%)
- This scenario assumes growth from all existing operators and that DSA develops as a major LCC base of much larger scale than in the core growth scenario.

As in the core scenario it is envisaged that a global network carrier provides services to a European hub, but in this scenario, it is envisaged that this is supplemented with services to a Middle East Hub along with a more extensive network of long-haul services, particularly to destinations such as the US, Middle East, Indian Subcontinent and the Far East as the airport’s enhanced scale enables it to become a primary long-haul gateway east of the Pennines
Passenger growth scenario

![Passenger growth scenario graph]

- **Core growth**
- **High growth**
The cargo growth opportunity

DSA has experienced strong traffic growth in recent years and is now established as a credible alternative to long established airports. In 2017, the airport added scheduled cargo services that had historically operated through other UK airports. These services were secured as a result of DSA’s proven ability to positively impact supply chains based on its efficient and flexible operations.

Unlike the passenger market, the air cargo market is not restricted by localised catchment areas. This means that a well-connected airport located centrally in the UK is well able to facilitate cargo traffic destined for all parts of the UK and potentially mainland Europe.

UK cargo capacity is currently limited and is expected to become even more so, as general capacity, particularly at large airports becomes further dominated by passenger activity, squeezing out cargo services. This emphasis on accommodating passenger growth is reducing availability of slots for pure cargo traffic and resulting in deteriorating service levels for cargo. There are many emerging examples of freighter traffic being forced out of major airports including most recently, Amsterdam Schiphol prioritising available slots for increasing passenger services.

Changing consumer behaviour is already driving an increased need for growth in air freight traffic with the International Air Transport Association (IATA) reporting a 9% increase in Available Freight Tonne Kilometres (AFTK’s) and a 4.5% increase forecast in 2018. Boeing’s World Air Cargo Forecast in 2016–17 predicted that global air cargo demand will more than double over a 20 year forward timeline. This demand is driven by changing trends such as the growth in e-commerce and time and temperature sensitive goods such as pharmaceuticals, perishables and consumer goods such as textiles and fast fashion.

The demand for both integrator and pure freighter traffic is growing not only as a result of this growing demand, but also improved aircraft technology and market dynamics. New freight aircraft such as the 747-800 are more fuel efficient than the previous generation of aircraft offering increased viability to move goods by air. Furthermore, the increasing operation of high density passenger aircraft, particularly the A380 is reducing belly hold cargo capacity on passenger flights. Low Cost Carriers are on the whole maintaining their position of not targeting or accommodating belly hold cargo.

DSA forecasts that whilst strong cargo market growth will continue, the capacity of other UK airports, particularly those in London and the South East, to serve pure freighter traffic will become increasingly constrained. This means there will be both an increasing need for existing traffic to be accommodated elsewhere in the UK and for new capacity to be created to accommodate new traffic arising from significant forecast growth in demand. DSA is in a prime location and one of few UK airports capable of accommodating this increased demand.

DSA’s vision plan sees the airport develop into a nationally significant air freight hub based on its central location, strong transport network, runway capability and the available space to house integrated large scale airside, transit sheds and landside logistics facilities. The site is capable of handling 250,000 tonnes of cargo a year.
Cargo traffic forecasts

**CORE GROWTH SCENARIO**

→ Cargo tonnage grows to c. 70,000 tonnes per annum by 2037

→ This scenario assumes a continuation of DSA’s success in the air freight market in both ad-hoc and scheduled freight operations, growth in new scheduled services and accommodating traffic currently handled elsewhere in the UK

This scenario is assisted by some bellyhold cargo on future long-haul passenger services from DSA

**HIGH GROWTH SCENARIO**

→ Cargo tonnage grows to c. 170,000 tonnes per annum by 2037

→ This scenario assumes a significant acceleration of DSA’s cargo throughput and of growth in scheduled freight operation, the introduction of integrator traffic and bellyhold cargo driven by a greater range of long-haul passenger services

Cargo growth scenario
Delivering the high case and beyond

For both passenger and cargo, the high growth forecasts represent ambitious and transformational growth for DSA. A wide and varied range of external factors could facilitate this enhanced and accelerated growth trajectory, although it is recognised these factors cannot be guaranteed. The masterplan has taken account of these high forecasts to ensure that if they come to fruition, the land will be available to provide the necessary expansion of facilities.

The airport’s vision plan sets out ambitious plans to deliver East Coast Mainline rail connectivity into the DSA site in the next decade. The recent rapid growth experienced by DSA following the delivery of enhanced road connectivity demonstrates the significant positive impact that infrastructure investment makes in enabling growth at regional airports. The masterplan drawing safeguards a corridor to ensure that any developments in the meantime do not impede the ECML opportunity.

Additional infrastructure enhancements could also include additional major highway improvements such as the widening of Great Yorkshire Way or significant investment in public transport provision such as enhanced bus provision or the introduction of a Light Rapid Transit System in the Sheffield City Region.

Changes to government policy could significantly enhance the airports ability to deliver greater passenger or cargo throughput. This could include greater government support for the role of regional airports as economic hubs, a focus on better or fully utilising existing latent runway capacity and decisions to not support further expansion of major hubs in the South East beyond Heathrow or in the North West. Reduction, removal or reform in air passenger duty taxation at less congested airports or in totality would significantly increase competitiveness of the UK’s regional airports and help to unlock new services. In addition, smaller airports currently carry a disproportionately high burden of regulatory costs; greater equality in this area would lead to additional investment in facilities and growth.

Deregulation within the aviation sector such as an increase in bilateral traffic rights to emerging markets such as China could also deliver significant opportunities for UK airports. Further consolidation or capacity constraints across the UK airport sector, particularly amongst regional competitors in the North or Midlands could lead to a reduction in competition, increasing opportunity for airports such as DSA which offer available capacity.

Finally, should economic conditions outperform the assumptions that underpin the forecasts in the masterplan, whether within the airports catchment, the UK, European or Global markets, there would be a corresponding increase in demand for passenger and cargo traffic. This could include greater levels of investment in the Sheffield City Region leading to increased levels of business travel or as yet unknown positive economic impacts as a result of Brexit in 2019 such as free trade agreements.

The following sections demonstrate, as referenced earlier, that the masterplan has taken account of these high forecasts to ensure that if they come to fruition, the land will be available to provide the necessary expansion of facilities.
The masterplan – key features

Accommodating future requirements

The forecasts set out in the previous section anticipate growth for the airport to reach a core scenario of 4.7 million passengers and 70,000 tonnes of freight by 2037. Accommodating this level of activity alongside growth in other non-commercial operations will require improvements and expansion of airport infrastructure.

This section examines the anticipated pathway to expand in the most effective and efficient method to ensure a flexible and future proofed operation of both growth scenarios.

To ensure no aspect of the airport’s aviation operations and business is compromised or hindered, the masterplan drawings identify the extent and land take of facilities needed to accommodate the high case for both passengers (7.2 million) and cargo (175,000 tonnes).

The masterplan considers development up to 2037, but this should not be assumed as the end date beyond which no further growth occurs. Further development beyond 2037 will be a factor of the airport’s business planning and future masterplans.

Should commitment be secured to deliver rail connectivity to the East Coast Mainline, a review of the masterplan would be undertaken given the transformational impact of rail connectivity. A review would also be undertaken should any other external factors outside of the airport’s influence result in significantly increased growth prospects beyond the high case.

Airport and landside development design objectives

The masterplan proposals have been developed in line with aviation and industry planning standards to ensure the provision of infrastructure development that accommodates growth in an appropriate and efficient manner. These include:

- Passenger facilities – a comfortable and efficient terminal facility which maintains the current award-winning environment. Greater provision of public transport links with suitable levels of car parking.

- Cargo facilities – providing an efficient and competitive operation for imports and exports, with the opportunity to co-locate alongside a leading logistics centre.

- General and business aviation facilities – creating an unrivalled environment for the growing aviation industry, with space for advanced maintenance repair and overhaul, private aviation and other non-commercial aviation companies. Realising skills provision and research and development to serve the facilities.

- Airfield infrastructure – safeguarding and improving the airports airfield assets. Ensuring development of the infrastructure supports current and future aircraft types and efficient operation.

- Logistics and advanced manufacturing – linking up with regional partners to provide an exciting and desirable economic cluster, well connected to both the UK road and rail network, with the added attraction of global connectivity.

- Residential – providing a full range of quality homes for the region’s growing workforce bringing the opportunity for employees of the airport and other businesses within the ACY employment zones to live close to their workplace.

- Retail and leisure plaza – dedicated area close to potential ECML rail station for central plaza of retail, hotels, food and beverage and community services to serve the living and working airport community.

- Business and commercial – continued expansion of business and commercial accommodation around the ACY site.

- Site road network – provision of efficient landside road and pedestrian infrastructure providing full connectivity between all constituent parts of the masterplan area.
Design constraints

The aviation industry has detailed technical and safety standards which govern the development of infrastructure around the airport.

These include limitations on building heights in proximity to the runway, clear areas to manoeuvre aircraft around taxiways, operational and security considerations and environmental impacts such as on land levels and woodland areas.

The design of future infrastructure has to address these requirements and has been considered within the development of the masterplan.

What will the masterplan deliver?

The masterplan envisages that passenger infrastructure at the airport will expand in line with the growth forecasts to maintain the award-winning efficient, flexible, customer and operator friendly environment currently provided.

Passenger growth will be delivered alongside growth in cargo with the existing northern cargo facilities being expanded and a whole new site designated to the south to accommodate both future growth in the DSA cargo operation and potential requirements of other third party cargo and integrator operators. The masterplan will also outline the future development of the wider ACY site to accommodate a sustainable mix of major employment zones alongside a residential, community and living area.

This expansion is envisaged across the key infrastructure areas listed below:

- Passenger terminal
- Airfield infrastructure
- Cargo
- General and business aviation
- Advanced manufacturing and logistics centre
- Business and commercial
- Residential and living area
- Hotel, retail and leisure plaza
- Utilities

Passenger terminal

Additional terminal capacity will be required in order to handle the forecast increase in passenger numbers whilst maintaining the high quality of customer experience. The existing terminal was designed to accommodate over two mppa and to be easily expanded where and when demand arises.

The masterplan envisages that the terminal will expand in both north and south directions in the current form of the building to effectively double the size of the existing facility. This will create additional central space allowing expansion of facilities for arrivals, check-in, security, lounge areas and the provision of new retail and food and beverage outlets.

The building will incorporate new advances in airport technology to ensure a smooth experience for passengers along their entire journey through the terminal.
Aprons and stands

Passenger aircraft would be served from a mixture of dedicated terminal stands and multiple use remote stands. The masterplan envisages apron growth in the following areas:

The existing main passenger terminal apron would be extended to the north, allowing for a pier to be built at 90 degrees to the existing terminal structure. This will be joined to the airfield via a rebuilt taxiway Charlie, which would also move slightly north, and a reconstructed taxiway Echo to serve the stands to the north of the gate pier.

The main apron would be made up of contact stands facing nose in to the terminal building and pier configured to Multi Apron Ramp System (MARS) designs. This apron reconfiguration will provide the capacity for a mixture of up to 19 narrowbody aircraft, or 9 widebody aircraft.

North of the main apron contact stands further MARS stands will be incorporated, allowing for a further 18 narrowbody aircraft or 9 widebody aircraft to be served by passenger buses. These stands can alternatively be used for cargo aircraft.

Where appropriate, stands would be equipped with fixed technology to assist the operation, such as Fixed Electrical Ground Power (FEGP) units to service aircraft, removing the requirement for diesel generators. Visual Docking Guidance Systems (VDGS) would be used to remove the need for marshalling and provide information to the flight deck.

KEY FEATURES

- Doubling the floorspace of the terminal building whilst maintaining short walking distances through the airport journey
- Expanded check-in areas, allowing for the addition of self-check in facilities, baggage drops and twilight check-in
- An enlarged security area, equipped with state of the art technology, trebling the number of search lanes from 4 to 12 and the addition of automated boarding card scanners
- The departure lounge will feature enlarged seating areas, accompanied alongside additional food, beverage and retail operations, tripling the retail floor space. The departure lounge will enjoy a panoramic view of the runway and apron. An airside outdoor zone will also be available.
- Addition of a second business lounge. Wi-Fi freely available across the terminal
- Additional departure gates, utilising a reoriented apron configuration to create 19 additional gates to allow for simultaneous boarding of flights. The majority of gates will be enabled for stainless aircraft embarkation and disembarkation
- Enlarged immigration area enabling expanded UK Border Force provision with automated biometric gates
- Increase in baggage carousels from 3 to 8

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The expansion will be in phases in line with forecast growth, and will take into account the types of carriers the airport is serving.

The design allows for the quick turnaround times required by today’s low cost carriers, but also safeguards for the addition of long-haul carriers by providing flexible infrastructure that can serve both types of operations.
Car parking

Car parking is currently exclusively provided by the airport company. All official airport parking will remain in close walkable distance to the terminal, with additional space using a meet and greet operation. Additional accessibility bays will also be created in close proximity to the terminal. Third party providers may increase their presence over the lifetime of the masterplan.

Official airport parking spaces will remain within walking distance of the terminal, removing the need for any terminal transfer bus upon parking.

Additional parking space can be provided close to the terminal by expanding both north and south, along with the potential for future multi storey car parking. The additional space would also provide further premium parking and include a dedicated hire car storage village currently operated from Heyford House.

Official airport meet and greet will continue to operate from a drop-off and pick-up point adjacent to the terminal building. Capacity for meet and greet cars to be stored will be provided to the west of the main car park, and long stay to the south east of the runway.

Pick-up and drop-off areas will continue to be at the terminal front, enabling quick and easy access to passengers direct to the terminal.

Staff parking will remain adjacent to Heyford House, with room for expansion in the areas not used by airside infrastructure. Multi deck parking may also be considered to answer capacity requirements as demand arises. Increased public transport usage is anticipated over the lifetime of the masterplan, hence reliance on commuting by car may decrease.

Transport interchange

With the completion of Great Yorkshire Way from the M18 in spring 2018, the airport enjoys excellent surface access by road, with travelling times from major urban centres greatly reduced. Anticipated growth in passenger numbers will increase the demand for further improvements to public transport provision across the masterplan period, which can incorporate both local and regional bus and coach services. Rail and other mass transit systems can also stimulate increased use of public transport to access the airport.

Bus and coach

Bus and coach services would continue to utilise the terminal front lanes for pick-up and drop-off. Longer term, subject to demand, space for a dedicated bus and coach station has been safeguarded adjacent to the terminal building.

Rail connectivity

The masterplan identifies the two potential options for rail connectivity to the site. The first is a community station on the existing Doncaster – Lincoln line as per the previous airport masterplan 2008.

The community station would be located at the north end of the site and be linked by bus shuttle services between the station and the terminal.

Accordingly, it is proposed to remove the previously safeguarded corridor between the community station site and the passenger terminal from the masterplan, as this would not be needed for the more cost effective solution of bus shuttle transfers. The Lincoln line station option would also serve the nearby commercial premises at the northern end of the ACY site and through local and regional rail services would also provide some benefit to the nearby Yorkshire Wildlife Park.

KEY FEATURES

- Increase parking provision from 4,000 spaces to 18,000 spaces across self-park, meet and greet, family and premium products
- All official airport parking to be within walking distance of the terminal building, including an increase in bays for accessibility
- New dedicated hire car village
The second option would rely on delivery of the potential ECML rail connection into the ACY site; in which case, the proposal is for a central station to be located immediately to the south of the proposed central retail plaza and linked to the terminal by a covered walkway.

The station would be served by national services between London and Scotland, as well as regional and local services. It would also serve anticipated employment, community and residential zones to be developed within the ACY site as part of the masterplan, as well as performing a key regional parkway function and providing far wider ranging connectivity and access benefits to the Yorkshire Wildlife Park and the proposed PGA Rossington Golf Course.

Because this option is more ambitious, with more challenges to delivery, the masterplan does not include or rely on it, but it does safeguard a corridor for the potential route to demonstrate compatibility with the ECML connection which DSA and its regional partners are pursuing.

Should this option be secured, a station on the Lincoln line would not be necessary.

Other future local and regional mass transit solutions, such as tram or tram-train initiatives would be considered as they emerged.

Airfield infrastructure

The runway infrastructure necessary to facilitate the masterplan growth is mainly in place. The runway resurfaced in early 2017, is 2,893 metres long and 60 metres wide, which is more than sufficient to handle any current aircraft.

It is not expected that any runway extensions will be required in the masterplan period; however, it is possible to add starter strips within the current airfield boundary should there be a need to lengthen the runway to over 3,300 meters.

The full length parallel taxiway alpha would over the masterplan period need to be strengthened and widened to enable all aircraft types to exit and enter the runway at any point.

An additional parallel taxiway would need to be constructed to the northern end of the airfield to enable multiple movements on and off the main and northern aprons.

Two new rapid exit taxiways, one at north and one at the south of the runway would speed up the departure of aircraft from the runway upon landing enabling more intensive use of the runway itself.

KEY FEATURES

→ Core runway infrastructure is in place already, runway resurfacing took place in early 2017 delivering a long term lifespan and maintaining the ability to handle any aircraft

→ Supporting taxiways to be expanded, reconfigured and strengthened as growth occurs to provide further efficiency and enable multiple movements off the main and northern aprons

Rapid exit taxiways to be added to allow arriving aircraft to clear the runway more quickly, providing the ability for increased frequency of movements
Airfield services

Air traffic control

Aerodrome services and infrastructure are already in place and suit the future needs of the airport. Future changes and improvements may be made due to efficiency opportunities or technological advances, together with regulatory changes.

The airport’s air traffic control service is currently provided by Air Traffic Control Service Ltd. They operate both the airfield visual control room (tower) and radar frequencies and provide all regulatory oversight.

Control tower

The current control tower is the RAF tower which was in place at the time of the base closure. The facility was fully refurbished before the airport opened in 2005 and has undergone general refurbishment and improvements since. The masterplan period does not see the requirement for a new tower facility, as all development would be still visible from the present tower location and height. CCTV may assist where apron areas are less clearly visible.

Technological advances in the air traffic sector could mean that should the current tower no longer be suitable, remote tower technology could be employed to provide a future solution.

Radar installation

The airport has both primary and secondary radar systems at its disposal. The on-site radar array has recently undergone refurbishment works by NATS. Subject to no major technological changes, the current facility will be used for the period of the masterplan, with refurbishment and additions being made as regulatory and technological improvements become necessary.

Fire station

The current fire station located on the eastern side of the airfield is deemed to be suitable for the duration of the masterplan period. General refurbishment works will keep the building in a suitable condition with major investment being made in new technology and equipment such as major foam tenders to enable the highest level of safety to be maintained.

Instrumentation and air ground lighting

The airfield currently enjoys some of the most advanced navigational aids available. Runway 20 has a Category III Instrument Landing System (ILS) with associated Air Ground Lighting (AGL) which enables extreme minima operations in all-weather scenarios.

Future developments will see all new installations, and the replacement of existing AGL with modern LED units, increasing both visibility and improving the efficiency of the lighting systems. Replacement and refurbishment of existing non-directional beacon (NDB) and distance measuring equipment (DME) will take place within the masterplan timeframe.

The runway ILS system will be upgraded as technology allows, and the Category I system on Runway 02 may be upgraded with associated five bar lighting arrays to bring it to the same category as the system on Runway 20 as demand dictates.

Other airfield technology, such as Runway Visual Range systems (RVR) will be maintained and upgraded throughout the masterplan period.
Cargo

The masterplan has two distinct scenarios for growth in the cargo business at the airport. The current growth has been delivered through the airport’s ability to handle ad-hoc and complex traffic whilst building credibility within the market to establish its first scheduled freighter services during 2017.

This strategy will be used to continue growth in scheduled freighter services, whilst further developing a market leading position in handling ad-hoc and complex traffic.

The airport will also seek to drive additional freight growth by leveraging the available capacity both in the air and on the ground to attract large scale integrated multimodal activity. The aim is to attract users looking to seamlessly link air and land logistics to provide national and global connectivity.

The masterplan envisages the continued expansion of the cargo area to the north of the site, Cargo North and would see a new cargo campus emerge to the south of the site known as Cargo South. It will see a total increase in cargo shed processing space from 12,000 sq ft to c. 450,000 sq ft.

Cargo North

The area to the north of the passenger operation is currently a mix of freight and general aviation accommodated on a legacy stand layout from the Royal Air Force operations. Five RAF Type C hangars are still in use, of which two are in aviation use.

Transit shed

Operated by the airport under the Anglo World Cargo brand, Hangar 1 accommodates the current cargo transit shed within 12,000 sq ft. The transit shed is being expanded to take up the whole of Hangar 1, to be completed in spring 2018. This will increase capacity to 50,000 tonnes of freight per annum.

The expanded shed is being fitted with truck docks, advanced scanning equipment such as large aperture X-Ray and Explosive Trace Detection systems, with aircraft pallet build and breakdown stations. The facility will also boast the capability to supply short term secure bonded storage.

Access to the airfield is provided through a dedicated control point on the airside face of the transit shed.

Aprons and stands

The existing infrastructure can be incorporated into any future airfield layout by refurbishing or reinforcing the pavement. It is proposed that the area is reoriented to provide space for up to 9 widebody aircraft or up to 18 narrowbody aircraft. These stands can also be used by passenger aircraft as remote stands by bussing passengers from dedicated gates within the terminal.

Additional stand facilities such as Fixed Electrical Ground Power (FEGP) and Visual Docking Guidance System (VDGS) would be incorporated where possible, alongside space for mobile freight equipment such as high loaders and dolly parking.

KEY FEATURES

- Transit shed expansion to quadruple cargo handling area from 12,000 sq ft to 50,000 sq ft, delivering a fully configured roll through transit shed facility
- Improvements to airfield to provide aircraft parking for up to 18 narrow body or 9 wide body aircraft
- Full energy efficient LED lighting facilitating full 24/7 cargo handling service
- Improved head of stand areas allowing full tail to truck operations
Cargo South

Given the completion of Great Yorkshire Way in spring 2018, the wider ACY site presents a major opportunity to create a new landside logistics and advanced manufacturing park south of the airport terminal, with new access roads from the A638 Bawtry Road/High Common Lane. To take advantage of the multimodal potential of linking air cargo with a major road transport and logistics opportunity, the masterplan envisages an additional cargo transit shed campus located to the south of the passenger terminal.

The campus would consist of a transhipment hub building, surrounded by a landside trucking yard on its west side and with dedicated aircraft stands to the east. The facility would be operated by either a single or multiple major logistics operators or fast moving consumer goods based internet retailers. The potential freight throughput capacity of such a facility is estimated to be hundreds of thousands of tonnes per annum which would be added to the existing growing cargo operation in Cargo North.

Transhipment hub

The masterplan identifies and safeguards the land for a facility up to 500,000 sq ft of transit shed floorspace. The building would incorporate truck docks to enable fast turnaround of goods in and out of the facility.

This building will have direct airside access to stands along one side of the building allowing an aircraft load to be fully built under cover ready to be loaded onto the aircraft on arrival, or in reverse an aircraft load received directly under cover from the aircraft and distributed to waiting trucks landside.

Aprons and stands

On the airside elevation of the building, up to 8 MARS stands would be provided, allowing a mixture of up to 8 widebody or 16 narrowbody aircraft to be accommodated at any one time. The layout on the plan safeguards the ability for stand layout to be further mirrored on the opposite side of the taxi lane, to double stand capacity in the future.

KEY FEATURES

→ New cargo operations to house major integrators and logistics operators or fast moving consumer goods operations
→ Direct airside access with fast loading stations landside
→ Up to 500,000 sq ft of floorspace
→ Stands to facilitate up to 8 widebody or 16 narrowbody aircraft, design future-proofed to double this stand capacity

General and business aviation

Presently General and Business Aviation (GABA) activities share the area to the north of the terminal with the cargo operation and are a mixture of light and heavy aircraft operators. The Fixed Based Operator (FBO) responsible for handling all visiting non-commercial traffic is also situated in this area and is operated in house under the brand ‘Consort Aviation’.

Growth in the sector is expected across the period of the masterplan. An expanded General Aviation North (GA North) campus, is envisaged, supplemented by a General Aviation South (GA South) campus for light aviation on the eastern side of the airfield.

Hangar provision at the airport will increase from the current 125,000 sq ft to over 1 million sq ft across three distinct areas able to accommodate general and business aviation, Maintenance, Repair and Overhaul, training and any other aviation related requirements and demands.
General Aviation North

GA North currently refers to the apron areas to the north of the passenger terminal which are shared with the cargo operation. The curved layout of the area owes much to the pre-WWII tactical design of RAF stations. Five RAF Type C hangars occupy the space. Hangar 1 is home to the cargo transit shed, Hangar 2 is operated by Textron, Hangar 3 by 2Excel and Hangars 4 and 5 are storage facilities. A new Hangar 0, built in 2017, occupies the plot closest to the runway and is home of the National Police Air Service (NPAS). The area also houses a self-serve avgas fuel facility, the main airport fuel farm with bulk storage tanks. A hangar is under construction to the north of the fuel farm which will become the new home of Vulcan to the Sky trust (VTTS).

The area is home to all general aviation activity currently at the airport. This includes fixed wing and rotary flying schools serving both leisure and commercial needs, alongside all the above referenced operations.

General Aviation South

GA South is envisaged to be a home to the lighter, more leisure focussed sector of general aviation at the airport. Flying schools, light aircraft owner operators and light business aviation aircraft can all be housed in the area, which will utilise a section of the eastern perimeter track, formerly the eastern taxiway from the Royal Air Force period.

MRO campus

Beyond traditional airport activities, the ACY site has the capability to house and facilitate a unique airside campus for Maintenance, Repair and Overhaul operators (MRO), manufacturers and aviation operators. These developments represent high value, innovation and research led business activity generating a significant number of highly skilled jobs both directly and within accompanying supply chains.

The envisaged MRO campus will be a natural extension of Sheffield’s existing Advanced Manufacturing Innovation District (AMID). The University of Sheffield’s Advanced Manufacturing Research Centre (AMRC) at Catcliffe has become a global leader in advanced manufacturing innovation, covering sectors from aerospace to nuclear engineering.

The AMRC has been pivotal in attracting high profile inward investment to the Sheffield City Region, with organisations such as Boeing, Rolls Royce and McLaren Automotive choosing to locate new operations within the AMID.
The University of Sheffield is in the process of exploring a proposal to locate a satellite of its AMRC facility within the site of the planned MRO campus. The facility is to be branded MRO 2050 and would establish a dedicated AMRC training centre to guarantee the necessary local skills required by incoming operators attracted to the MRO campus. It is anticipated it would help to attract globally significant brands to ACY, just as the existing AMRC has into the AMID. This would also support the proposed adjacent landside Advanced Manufacturing campus (as outlined later in the document) aligning itself to the skills requirements across the ACY site and any subsequent sites.

The MRO 2050 facility would be built around the same designs as the Sheffield AMRC, but adapted for a live airfield environment, with a fully fitted Part 145 maintenance hangar attached to the centre in an airside setting. Students will have the opportunity to learn by working on live aircraft which would be capable of being flown and tested on the airport runway whilst also utilising advanced training facilities such as remote video link and virtual reality platforms.

Aprons and taxiways

A further parallel taxiway west of taxiway alpha will enable all sizes of aircraft to access the southern MRO campus. From the new taxiway, plots of various sizes will be accessible via aprons suitable to serve new hangars, and able to accept any size aircraft.

Hangars

The plots west of the new parallel taxiway and airside aprons are large enough to enable construction of hangars for any current aircraft flying today. Hangars may be a mix of sizes, suitable for the occupiers’ needs, fitted out for the operation intended.

Uses and potential tenants

Various operations could take place within the campus, however the aim is to attract mainly MRO organisations who have a need to work on live aircraft.

The type of MRO work may vary, and could include general line maintenance, livery and respray, aircraft manufacture or aircraft recycling.

Solar farm

There is potential for a solar energy development at the northern end of the airfield, east of the runway, within DSA’s operational boundary. The site could through the electricity generated fully meet the terminal building’s electricity needs. Land is allocated within the masterplan should this development come to fruition.

Advanced Manufacturing and Logistics Centre

To the west of the MRO Campus will be in the region of 3–3.5 million sq ft of Advanced Manufacturing and Logistics space. This will provide an ideally located opportunity for advanced manufacturing operations, aerospace or non-aerospace related, together with logistics operations which could in part be related to the southern air cargo centre.

This is a planned opportunity for DSA and ACY to respond to demand arising from the types of companies referenced in the 2017 Independent International Connectivity Commission report. The report references the fact that over and above their role in providing vital connectivity, airports are important economic clusters, delivering jobs and GVA outside their wider connectivity impact.

It goes on to explain that airports have the potential to position themselves as lynchpins for wider economic hubs, supporting the attraction of Foreign Direct Investment (FDI). This is not only through activities related in whole or part to the core airport business such as aircraft maintenance or logistics but more general business park activities, allowing other business and commercial uses which value proximity to an airport to benefit from such a location.

Business and commercial area

The ACY estate already has other sites in its northern area which are established locations for offices, hi-tech advanced manufacturing, warehousing, distribution and logistics.
The Sheffield City Region Manufacturing Enterprise Zone designation covers 10 hectares of the estate, providing benefits to companies looking to relocate and take advantage of Enhanced Capital Allowances.

Planning permission has been granted previously for the delivery of over 2 million sq ft of commercial development over three phases. Some of this accommodation has been built out, with several other larger areas yet to be developed. One of the largely undeveloped areas west of the passenger terminal (formerly known as phase 2 business park) is identified in part as an area for additional airport car parking, with the remainder continuing to be identified for commercial employment uses.

**Residential and living area**

The overriding ambition of the masterplan is to see the real opportunity to deliver much more than a traditional airport serving passenger, freight and onsite businesses. The ambition is for an airport city based on the Aerotropolis model where a thriving residential and living area is an integral part of a sustainable airport community.

Key to this ambition will be the provision of a range of high quality housing options, a strong sense of place and a community core with supporting retail and similar facilities. The considerable employment the masterplan envisages would stimulate a need for local housing which the wider site would comfortably accommodate. It would also benefit from the transport connectivity DSA currently enjoys. It is likely that companies looking to invest in or within close proximity to DSA would find the location more attractive if they can see a commitment to a suitable level of housing to provide local residential opportunities for their potential employees.

The area presents an ideal residential development opportunity as it is largely free from technical constraints, being located outside green belt and flood risk zones, and within the ownership of a single landowner experienced in the delivery of integrated mixed use development and infrastructure projects. Indeed, should railway connectivity into the site be achieved through an ECML connection, the station would be alongside the central retail core conveniently located for the proposed residential zones, further increasing their attractiveness.

The close proximity of proposed community facilities, public transport and employment opportunities will make this a highly sustainable location for housing development. As far as possible, existing landscape features such as field boundaries will be respected and protected within the detailed site layouts.

Recent developments at Pembridge Park and Horizons to the north of the airport access road (delivered by Barratts and Taylor Wimpey respectively) have already demonstrated high demand and confirmed the attractiveness of this location as a popular place to live.

It is estimated that 1,000 new homes have been built within a 2-mile radius of DSA since the airport opened. The delivery of all facets of the masterplan will provide a real sense of place and provide those recently constructed homes with a sustainable mix of facilities and work opportunities, helping to reduce the need to travel.

<table>
<thead>
<tr>
<th>KEY FEATURES</th>
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<tr>
<td>→ Between 2,000 – 3,000 homes delivered over the life of the masterplan, contributing significantly towards the city region housing targets to deliver 70,000 new homes over the next ten years</td>
</tr>
<tr>
<td>→ Housing would range from affordable to executive</td>
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<tr>
<td>→ The land outlined for housing would not lend itself to aviation uses with the proposed employment zones better placed to be in closer proximity to the runway</td>
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<tr>
<td>→ The housing would not impede the airport’s operations nor be situated under the direct approach or departure pathways for aircraft</td>
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<tr>
<td>→ The masterplan would safeguard an area within the residential area for primary school provision should it be deemed necessary</td>
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<tr>
<td>→ The residential area would be in close proximity to the commercial centre for retail, hotel, food and drink and community facilities and would also be close to the potential central ECML station</td>
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Hotel, retail and leisure complex

The original outline planning permission for DSA secured the principle of delivering a further mix of leisure, hotel and community uses at the airport.

Facilities now include a 102-room Ramada Hotel within walking distance of the airport terminal, which also offers a business centre and conference facilities. Sports facilities in the area include playing fields, a gym, sports hall and floodlit synthetic pitches at Hayfield School on Hurst Lane which are available for community use.

This is complemented by a large woodland area at Marr Flats Plantation offering extensive open space, public access to which has been enhanced by provision of footpaths, cycle ways and a woodland corridor.

Outline planning permission has also been secured for a public house and restaurant alongside and to the south of the airport access road, as part of the planning permission for what has historically been known as phase 3 business park.

The masterplan now proposes to utilise the phase 3 business park site to integrate a complete hub of amenity and community uses, including retail, hotels, food and drink and other community facilities.

Education and skills

The ACY estate also supports a number of learning and education facilities:

Hayfield Lane Primary School

A community school for children aged 3–11 with nearly 230 pupils enrolled (as of 2016).

Hill House School

A coeducational independent school for pupils aged 3–18 which relocated to the former Officers’ Quarters of RAF Finningley in 2008. The school has since opened a new £1.1 million sixth form and music school in September 2011.

Hayfield School

An academy for pupils aged 11–18 which opened in 1971 on Hurst Lane. The school has specialist status in languages, mathematics and computing. A new multi-million pound sixth form college has been constructed adjacent to Hayfield School.

Hayfield Further Education Centre

Located within the Hayfield School, the centre provides over 70 adult and community courses covering a wide range of skills, hobbies and qualifications. The centre has approximately 1,500 students each year.

Vulcan Aviation Academy and Heritage Centre

Vulcan to the Sky Trust are planning a new state-of-the-art training academy which will provide a centre of excellence to the aviation industry for education and skills training. Initially focusing on training up to 80 new aviation engineers per year and starting from the age of 14, it will also include cabin crew and airport operations training.

DSA has identified a potential site for the hangar to be located and is supportive of the Trust’s vision.
Site road network

Rods

The masterplan will include the potential for two new roads linking the airport site with High Common Lane. High Common Lane runs adjacent to the south of the site and would provide sole access to the MRO Campus, GA South, cargo campus and hangars developed within the southern area. The roads will be considered in line with demand to ensure that the airport’s main access road does not become overly congested at the risk of hindering passenger operations.

The second phase of the Great Yorkshire Way link road will be completed by May 2018 providing direct access to the site from the M18, placing DSA at the heart of the UK motorway network.

Utilities

The airport site has future proofed utilities infrastructure that will meet the requirements of the masterplan. Some additional capacity will be required for the airside developments but the masterplan does not envisage sizeable investment to deliver this.

Waste water treatment works

The airport has its own dedicated waste water treatment works located to the north of the airfield with two lagoons. The facility is not yet close to capacity but can be upgraded subject to the requirements of future developments.

The need for additional utilities infrastructure will be explored as and when planning consents are sought for further expansion. Network connections in the area are generally available although additional infrastructure is likely to be required.

Surface access

Surface access to the airport includes the need to explore improvements to multimodal accessibility and consideration of impact of vehicle trips on the internal, local, and surrounding strategic road networks.

The masterplan proposals support multimodal accessibility improvements in the area. This includes improvements in accessibility by non-car modes of transport for air passenger, employee and residential-related travel. This will promote active travel and sustainable co-location of developments all with a view to minimising associated traffic impacts.

Sustainable travel and surface access

The airport’s approach to achieving sustainable travel is discussed in detail in the Airport Surface Access Strategy (ASAS).

The primary aim of the ASAS, through challenging targets, is to facilitate sustainable long term growth of the airport and to maximise the opportunities for inclusive transport access. It sets out how working with the airport’s partners and stakeholders through the Airport Forum, the airport will help to promote improved surface access from across the region and beyond through enhanced public transport provision, encouraging passengers and employees to use sustainable modes of transport.

The airport is very supportive of strategic transport schemes that aim to increase public transport connectivity and provide more reliable and more convenient public transport journeys.
Bus access

In terms of public transport, the airport is primarily served by bus services.

Dedicated express bus services, the X4 and the 737, are operated by First and Stagecoach respectively.

The X4 service has been operating since September 2016 and runs from the Frenchgate Interchange in Doncaster to the airport’s stand 1A, stopping at (Doncaster South Park and Ride) Parrots Corner only. This provides the opportunity for DSA passengers travelling by train to interchange onto the X4 in Central Doncaster.

The 737 service runs from Sheffield centre, via Wickersley, and Bramley. This service has been in operation since September 2017.

The recent opening of Great Yorkshire Way has reduced journey times between the airport and the major towns and cities in the region, it has also enabled the delivery of fast new bus routes to the airport and surrounding area. The airport will continue its efforts to build on the benefits of this new highway link, and work with bus operators, to deliver new bus services that serve local areas, major towns and cities in the region. As the masterplan area develops, opportunities for new connections to the highway network will become available, for example, along the A638 and Hurst Lane. The design of new masterplan areas will seek to maximise accessibility to bus services. This will aim to maximise patronage to support the business case for securing the new bus routes. These could be routes passing on the local highway network or serving the local Parrots Corner Park and Ride Station.

Rail access

Rail access to the airport is currently via the Frenchgate Public Transport interchange at Doncaster Railway station. This rail station is connected to the airport via its dedicated express bus service, the X4.

The masterplan identifies two possible schemes to deliver rail connections to the masterplan area, a Community Rail Station on the Doncaster – Lincoln line or a station located close to the terminal connecting into the East Coast Mainline. Plans for both stations have been included within previous airport masterplan layouts. The community rail station would be delivered at the north end of the airport site, linked with the wider masterplan area by shuttle bus, which would connect air passengers with the airport terminal.

The masterplan is also fully supportive of the proposed new connection from the East Coast Mainline through the ACY site and onto the Lincoln line to re-join the East Coast Mainline. A route has been safeguarded through the site, which would also provide an airport terminal rail station. The station would be located centrally within the masterplan area in close proximity to the terminal and the proposed central retail and service hub, such that it would also be easily accessible from the wider, non-airport, employment and residential areas. A high-quality rail connection would enable a step change in sustainable travel to and from the masterplan area, including for all airport, employment and residential journeys.

In the event that commitment and funding are secured to deliver this through rail connection and station, the masterplan would be reviewed to take full account of the transformational benefits of this direct mainline connectivity.
Parking

The control of airport parking provision is an important component for managing the airport’s sustainable travel objectives.

The airport’s parking strategy is linked to the aims and targets set out in the ASAS. The strategy aims to minimise single occupancy car trips, and to minimise passenger ‘Pick-up/Drop-off’ trips, as these generate two car trips for every airport passenger movement.

The provision of additional car parking will be required as the airport’s passenger throughput increases, however, this new supply will be based on a reducing ratio of car parking spaces to passengers, to reflect the expected increase in travel to the airport by sustainable modes. Challenging targets for future year sustainable travel, and the mechanisms that seek to achieve these, are set out in the ASAS.

Highways connectivity

The capacity and operation of the surrounding highway network was extensively researched as part of the previous masterplan process and subsequent planning consents.

A major recent change to the local highway network was the opening of Great Yorkshire Way, phase one of the Finningley and Rossington Regeneration Route Scheme (FARRRS) in February 2016, providing a direct link to Junction 3 of the M18 from Parrots Corner. The airport made a significant contribution to its delivery alongside other private sector contributors, the SCR LEP and DMBC. This new link has provided many benefits, including increased highway capacity, congestion relief and the opening up of new route options to and from Doncaster south.

The second phase completing the direct access to the airport will be completed in spring 2018. This final phase will extend Great Yorkshire Way from Parrots Corner to the airport access road, with new roundabout junctions at Bawtry Road and Hurst Lane. It will expand the existing benefits of FARRRS to provide a high-quality road link direct to the airport.

This will further stimulate employment and open up new route options for bus operators, particularly for express services seeking to connect with the airport and the potential East Coast Mainline rail station. This final phase of Great Yorkshire Way will also expand the local pedestrian and cycle route networks.

Environmental considerations

DSA is fully committed to working towards a greener, more sustainable environment and to ensuring that our activities are conducted in accordance with sound environmental practices. The airport recognises that it must maintain a balance between its operational purpose and environmental considerations, making all available efforts to mitigate the impact of current and future levels of activity.

Along with environmental considerations in future airport developments, the airport actively promotes an understanding of environmental issues among its staff, customers, suppliers and stakeholders, recognising its responsibilities to deliver long term, sustainable benefits to its people and the local community.

The proposals within the masterplan area have been independently appraised, exploring the following areas and highlighting where potential impacts from planned development may occur:

- Noise
- Air quality
- Landscape and visual environment
- Agriculture and land use
- Cultural heritage
- Flood risk and surface water drainage
- Energy and climate change
- Waste management
- Ecology and biodiversity

The approach to and timing of assessments of impacts is outlined within each section.
Appraisal methodology

The appraisal has utilised evidence from:

– The previous 2011 masterplan document, environmental considerations section

– The up-to-date passenger and cargo forecasts by Aviation Economics on behalf of DSA

– The airport’s vision plan which sets out DSA’s aspirations for the airport in the event that certain transformational transport infrastructure is delivered and the whole potential of the site is realised

– Masterplan drawing produced by Fletcher Rae illustrating and articulating how the proposed development zones could be laid out

The process taken in the appraisal has been in three stages:

– Stage 1: review of previous assessment
– Stage 2: current environmental baseline
– Stage 3: appraisal of updated masterplan

The 2018 masterplan area is defined in map 1. Changes to the 2008 masterplan proposals include:

– Re-working of the location and mix of airside passenger, cargo, MRO and General and Business Aviation activity to take account of up-to-date forecasts and the type of commercial aviation requirements now in circulation within the market.

– Future housing development zone of 175 acres with a central hub providing a mix of amenity uses including retail, food and beverage, and hotels on an area of 25.8 acres.

– A commercial/logistics development of 195.7 acres to the west of a relocated airside/landside boundary.

– Land for the proposed rail infrastructure options to the airport, a community rail station on the Doncaster – Lincoln railway line or a through connection from the East Coast Mainline to the Lincoln line have been presented for discussion. The airport is actively seeking a rail connection to be delivered within the masterplan period, but there is not yet any certainty that this will be achieved.

The masterplan drawing demonstrates compatibility with the rail connectivity aspirations by safeguarding necessary land, as identified below:

– A parcel of land of 34 acres to the north of the Lincoln line between Hurst Lane and Mosham Road has been proposed for residential development and station use related to the community rail station.

– A corridor of land equating to 12.8 acres for railway line for an ECML connection including station use has also been identified within the masterplan. It is likely that this kind of transformational change would be needed if the high growth scenario is to be achieved.

– Two further smaller parcels of land are also proposed for residential development. Some 10.1 acres (4.1ha) of vacant land off Hayfield Lane (south of the proposed community rail station) and 16 acres (6.5ha) of previously worked land east of Gatehouse Lane. These two areas will be the subject of outline planning applications to be submitted during 2018. These applications will be accompanied by appropriate assessments of all environmental and other considerations and impacts, which are likely to include highways, noise, odour, ecology, flood risk and ground conditions.

The Aviation Economics Aviation Growth Forecasts (2016), which focus on growth forecasts at DSA state that passenger throughput is expected to grow to between 4.7 and 7.2 million passengers by the year 2037, whilst cargo is forecast to grow to between 70,000 and 177,000 tonnes over the same period.

For robustness, the high case growth is assessed in terms of land take and environmental impacts.

The following section provides an outline of the key conclusions of this appraisal, considering each environmental topic individually.
Noise

This part of the updated masterplan provides a summary of the noise implications of the development to 2037, with attention restricted to noise from airborne aircraft. The increased use of the airport will contribute to increased passenger and cargo movements at DSA. Such activities have the potential to increase noise in the local area.

The masterplan anticipates that passenger aircraft activity at the airport will increase as a result of passenger numbers reaching 4.6 mppa or greater. The general nature of operations at DSA are forecast to remain similar but with modernised aircraft types being introduced. Two of the main airlines operating at DSA, Tui Travel which includes Thomson and Wizz Air, have placed large orders for quieter aircraft. It is expected that both will acquire the aircraft ordered well before 2037.

Future Airborne Aircraft Noise (daytime)

Using DSA’s new forecasts, noise contours for 2017, 2024 and 2037 have been prepared by the airport’s noise consultants, Bickerdike Allen Partners LLP. The contours, in line with UK practice, are produced to quantify the amount of aircraft noise experienced by people living around DSA during the summer (mid-June to mid-September). This initial noise assessment has taken 2017 as the base case scenario.

Historically, 57 dB LAeq,16h contours, have been used to represent the approximate onset of significant community annoyance. The predicted contours are shown in ‘Airborne Aircraft Noise Contours Forecast Summer daytime’. The contour for 2024 is quite similar in shape to that for 2017, but covers a greater area. This is not unexpected given the assumed increased level of activity.

The 2024 contour extends south to the main railway cutting north of Kings Wood (Bawtry), and to the north past Blaxton to the fields west of Acomb Farm. It contains a population of about 370. That is people resident in Blaxton and Finningley. The contour does not extend into Bawtry.

Compared to the forecast for 2016 in the existing masterplan, the new predicted future noise contour for 2024 exposes less people, and also equates to less noise than originally forecast at the Public Inquiry into RAF Finningley’s transformation to DSA. The forecast noise in 2024 is generally similar to now, the exception is for properties in line with the extended centre line of the runway in Blaxton (Mosham Road area) where a perceptible increase is forecast. That is to be expected given current activity is around 1 mppa, whereas by 2024 the high growth forecast indicates over 2 mppa.

In addition to residential properties, noise can potentially have effects on hospitals or schools. The noise contours suggest no significant noise exposure to any local schools. There are no hospitals in the vicinity, the closest is in Doncaster over 9 km to the north west. Similar contouring has been carried out for 2037 and a forecast approximate contour is shown in ‘Airborne Aircraft Noise Contours Forecast Summer daytime’. This takes into account the use of re-engined passenger aircraft. Such aircraft are quieter than current aircraft and are being acquired by many operators, as already referenced above.

The noise predicted for 2037, relating to further passenger activity increases is still modest in its effect, due to the unusually good location of the airport’s runway. Future daytime noise impact is predicted to be less than that for which planning permission was effectively awarded several years ago. This is as a result of the good location, and the envisaged use in 2037 of the new quieter re-engined aircraft.
Future Airborne Aircraft Noise (night time)

In a similar manner to daytime noise assessment, night-time aircraft noise has been initially evaluated using noise contours. These take into account the combined effect of several aircraft at night by determining the night-time $\text{dB L}_{Aeq,8h}$ values.

Noise contours for 2017, 2024 and 2037 have been prepared for DSA for the contour $\text{55 dB L}_{Aeq,8h}$ as used previously at DSA. The contours are compared graphically in ‘Airborne Aircraft Noise Contours Forecast Summer night time’. This shows that the contours for 2037 are larger. A similar situation was expected at the time of the Public Inquiry where contours for 2004 and 2014 were produced.

Comparing the predicted 2017 and 2037 contours shows that although there is a significant increase in the area of the contour, much of the extended area is over unpopulated areas to the north of Blaxton and to the south of the airport.

In 2037 the contour remains short of Bawtry. The populated areas that fall within the expanded contour in 2037 are within parts of Finningley and Blaxton.

The $\text{55 dB L}_{Aeq,8h}$ contour for 2014 was given in the Environmental Statement (ES) for the original application. That showed that for some locations, and in particular the northern edge of Bawtry, the noise levels now predicted for future years are actually less than those predicted for 2014 in the ES. The future night noise contours are less than those presented in the current masterplan for 2016. The current contours for 2017, are significantly smaller than previously predicted for 2016. For future years, the predicted contours affect considerably fewer properties and people than was originally envisaged or previously forecast for 2016.

Noise at night can potentially have negative effects on hospitals. With regard to DSA, the closest hospital is in Doncaster over 9 km to the north west. Due to this separation and the routes used by the aircraft, the hospital is well outside the contours. No impact is therefore expected for this hospital.

In essence, the development proposed in this masterplan would lead to increases in overall night noise, and lead to an increase in the population exposed to $\text{55 dB L}_{Aeq,8h}$. However, this increase is less than that predicted in the ES to 2014, which was based on different forecasts. No impact is predicted on local hospitals.
Mitigation

DSA has implemented a Quiet Operations Policy for many years which includes a range of measures to minimise and mitigate noise. These range from physical measures such as the Sound Insulation Grants Scheme (SIGS) where grants are made available for secondary and acoustic double glazing for those exposed to the highest levels of airborne aircraft noise; to operational control measures such as the design and regulation of arrival and departure routes, preferential runway usage, limits on the noisiest aircraft types at night, a night noise budget (Quota Count System), and minimisation of the use of reverse thrust on landing.

The success of the operational restrictions are regularly monitored by the Airport’s Noise Monitoring Sub-Committee and reported in an Annual Noise Report which is submitted to the Airport Consultative Committee and Local Authority for approval.

The existing Sound Insulation Grants Scheme will continue to provide mitigation to those most exposed to future noise and will be regularly reviewed. To date the scheme has extended eligibility to a total of 247 properties, which strictly is over and above what is required by the Section 106 Agreement under which the airport operates.

The airport operates a Noise Monitoring System (NMS) that records the levels of noise generated by departing and arriving aircraft at two locations, one in Bawtry and one to the north of the airport at Boston Park Farm. The airport requires that noise levels from departing aircraft do not exceed certain agreed levels at these monitors and manages this through the Aircraft Noise Sanctions Scheme under which operators may face financial penalties to be paid into the Community Fund.

Monthly reports on the noise performance of the arriving and departing aircraft are also prepared and submitted to the Local Authority. Information on complaints is logged and is reported to both the Airport Consultative Committee and its Noise Monitoring Sub Committee that between them contain representatives from local authorities including Doncaster and Bassetlaw Councils (the Council areas most affected) and other stakeholders.

The airport also has in place a Track Keeping System that records from the radar the actual departure and arrival tracks for the aircraft. This is linked to the NMS resulting in a Noise Monitoring and Track Keeping System (NM&TKS) that provides the airport with further information on which to respond to complaints and consider further ways of minimising the noise impact of the airport.
The future of the airport

Airborne Aircraft Noise Contours Forecast
Summer daytime 57 dB 2017, 2024, 2037 comparison

- 2017 Noise contours, 57 dB $L_{Aeq,16Lh}$
- 2024 Noise contours, 57 dB $L_{Aeq,16Lh}$
- 2037 Noise contours, 57 dB $L_{Aeq,16Lh}$

Airborne Aircraft Noise Contours Forecast
Summer night time 55 dB 2017, 2024, 2037 comparison

- 2017 Noise contours, 55 dB $L_{Aeq,16Lh}$
- 2024 Noise contours, 55 dB $L_{Aeq,16Lh}$
- 2037 Noise contours, 55 dB $L_{Aeq,16Lh}$
Air quality

The residential, commercial, logistics and wider on site developments are likely to increase traffic movements to and from the masterplan area. These developments and the increased use of the airport will also contribute to increased aviation and associated cargo movements at DSA. Such activities have the potential to increase air pollution in the local area.

Key access roads include the Finningley and Rossington Regeneration Route Scheme (FARRRS) Phase 1, the Airport Access Road (AAR) and the A638 (which will become a minor airport access route upon completion of the second phase of FARRRS). There is a risk that air pollution at DSA and in the vicinity (i.e. at sensitive receptors) of main access roads could rise with this increase in activity outlined above.

Mitigation and enhancements put forward include:

- Green infrastructure improvements including tree planting
- The airport working with local transport stakeholders will seek increased public transport services to serve the airport and planned residential development
- Electric vehicle charging points at new residential and commercial areas
- Preferential parking arrangements for electric vehicles at the airport
- Green Travel Plans for new employment areas
- New connecting roads into the employment and cargo zones from High Common Lane to reduce concentration of traffic on the main airport access routes. The roads would be delivered in line with developments within those zones

Agriculture and land use

Land assigned for the future housing development zone to the south west of the masterplan area is largely agricultural. The majority of the agricultural land within this area is predominantly of lower quality, being in Agricultural Land Classification (ALC) sub-grade 3b with small pockets of higher quality land in sub-grade 3a (defined as best and most versatile land). Where possible, the masterplan design will attempt to safeguard agricultural land.

The 34 acres of land planned for residential development between Hurst Lane and Mosham Road is classed as Grade 3 agricultural land. However, a site investigation report carried out in June 2016 explains that although the area historically comprised agricultural land, the site was labelled as a disused sand pit in 1962. In the following years, the site was covered with species-poor semi-improved grassland and currently remains as partially vegetated / disused ground.

Mitigation and enhancements put forward include:

- The appraisal recommends that updated investigations of the proposed area for the future Housing Development Zone to the south west of the runway are undertaken to accurately locate the areas of best and most versatile agricultural land (sub-grade 3a and above). The airport will undertake this study in line with residential zone development
- Where good quality soil is removed, all efforts will be made to reuse on site, to reduce waste and associated traffic movements
Landscape and visual environment

The site is not located within any nationally designated areas of importance in relation to landscape and was classed as a ‘Built up Area’ in the 2011 Census.

As a result of this environmental appraisal, potential landscape and visual impacts have been identified as a result of the 2017 masterplan proposals:

– A localised change in landscape character due to the introduction of new built form resulting in changes to views from local receptors

– Visual effect of developments to the south west of the runway

– Altering of views to the south west of the runway and residential areas of Auckley and Blaxton, including Public Rights of Way

Mitigation measures put forward include:

→ Consideration of screening in the form of woodland and screening bunds to be incorporated into detailed layouts designs to reduce the potential visual impact of the development

→ Detailed landscape assessments for new developments will be carried out as part of any future environmental assessments associated with future planning applications

→ Appropriate materials used in design to reduce impact (this might include green roofs and appropriate colours and materials to aid integration into the landscape)

Cultural heritage

There are no internationally or nationally designated cultural heritage assets located within the masterplan area, whilst there are a number of features in the wider vicinity, some distance away. These include the following two scheduled ancient monuments (SAMS):

– Rossington Roman Fort (SY1044), 1km north west of the masterplan area

– Roman Potteries (SY1108), 1km north west of the masterplan area

The above SAMs are unlikely to be affected by development at DSA.

There are a number of listed buildings within the surrounding villages of Finningley, Austerfield, Auckley and Hatfield Woodhouse. Finningley village, located to the north east of DSA is a designated conservation area and contains a Grade I listed medieval church with an additional four listed structures.

ArcHeritage (York Archaeological Trust) undertook an archaeological aerial photographic rectification and archival review assessment of land immediately to the south west of the airport runway in 2014 which identified cultural heritage features within the masterplan area.

A number of areas south of the airport access road outlined for development in the masterplan were not covered by the previous programme of archaeological works, and there is potential for development to contain archaeological features which were not previously identified and these are at risk of disturbance.

Mitigation measures put forward include:

→ Areas not previously assessed, which are intended for development, to be subject to archaeological surveying where findings from desk based reviews indicate the need

→ Impact upon local heritage assets to be assessed at the appropriate stage in the planning process

→ Where necessary, woodland and bunds for screening to be considered as part of future planning applications to reduce potential impacts upon local heritage assets such as conservation areas
Flood risk and surface water drainage

The masterplan area is outside areas of flood risk identified on Environment Agency mapping. The proposals have the potential to alter natural drainage patterns and affect overall water quality due to increased extent of hardstanding areas, however risk of flooding from local watercourses is unlikely to be a major issue for new development. Pluvial flood risk (i.e. from significant rainfall) may, however occur.

Potential mitigation in relation to flood risk and surface water drainage includes:

→ Pollution risk to surface water and groundwater to be mitigated through pollution prevention measures and environmental permitting

→ Further assessment of private water supply information within the vicinity of DSA prior to development as part of any future environmental assessment associated with the masterplan

→ Future assessment should include a Water Framework Directive Assessment

→ A ‘safeguarded area for development’ for an extension to the clean water balancing lagoon, or other suitable alternative to attenuate surface water run-off, to balance the expected future flows and keep within discharge limits should be considered for inclusion in the proposals

Energy and climate change

As well as reducing energy usage to reduce Greenhouse Gas (GHG) emissions, adaptation to climate change effects should be considered by the masterplan. Climate change presents potential future risks for developments which should be considered to ensure that plans can accommodate significant changes which may be experienced.

A solar energy development is under consideration to the northern end of the airfield, east of the runway, within DSA’s operational boundary. It is hoped that electricity generated will have the capability to fully meet the terminal building’s electricity needs.

Potential risks associated with climate change at DSA include:

→ Flood risk – although the site is located in a ‘zone 1’ low flood risk area according to the Environment Agency flood zone map, DSA contains large areas of hardstanding which may affect run off rates from the site. The proposed future Housing Development Zone and commercial / logistics development will further increase these areas, requiring the use of sustainable drainage system techniques to control and regulate surface water run-off.

→ Although DSA is not located in an urban area, the development of the area allocated for the future Housing Development Zone and commercial / logistics development may result in the need for a comprehensive green infrastructure and building performance plan.

Suggested mitigation as a result of this appraisal include:

→ Transport: use of electric and low emission vehicles and inclusion of electric charging points should be investigated

→ Potential to increase use of public transport, particularly if rail infrastructure is developed

→ Opportunities for the use of renewable energy such as the proposed solar farm should be investigated for both on-site and off-site use

→ Methods should be considered to reduce energy consumption: low energy lighting (car parks, terminal buildings/ runway), and opportunities for upgrading of current systems for heating and cooling the airport buildings for more efficient updated technology
Waste management

DSA has a waste management strategy in place. Its aim is to ensure that growth rates of waste are not proportionate with passenger growth rates.

Well planned waste management plans to be submitted with future planning applications will ensure the expected increase in passengers and commercial / logistics development are not likely to cause an increase in waste production.

The waste management strategy follows the waste hierarchy and seeks to minimise waste generated on site. Waste sent to landfill for compliance requirements has been reduced to a minimum and now accounts for less than 1% of the airport’s waste. The airport will continue to look to further segregate recyclables where possible and seek out waste contractors that are able to provide recovery / recycling facilities.

DSA participates in the Sustainable Aviation working group for waste and will continue to work closely with airline operators and third party contractors to ensure best practice is promoted on site.

Ecology and biodiversity

An ecology and biodiversity assessment has been prepared by TEP Ecology. Additional initial information has been gathered by Atkins in respect of the 10.1 acres of vacant land off Hayfield Lane and 16 acres east of Gatehouse Lane. The potential ecological impacts of the masterplan proposals as a whole include:

- Direct loss of habitats and species on land required for development
- Severance or fragmentation of habitats
- Animal road deaths
- Pollution to adjacent habitats by road run-off
- Disturbance to feeding, roosting and breeding birds and bats due to increased lighting
- Disturbance to feeding, roosting and breeding birds and bats due to construction noise

DSA is committed to ensuring that impacts on ecological resources are minimised and managed and that legislative requirements are met.

Mitigation measures put forward include:

- Further ecological survey and appropriate assessments will be undertaken to ensure that effects on wildlife are minimised, and adequate mitigation is provided where needed.
- Vegetation will be cleared outside of the breeding bird season wherever possible, or be supervised by an ecologist to ensure breeding or nesting birds are not disturbed. Where possible, areas of grassland that are retained will be enhanced through management. Planting will be integrated into all new developments, using native plant species wherever possible.
- Where possible, wildlife buffer zones will be provided around retained woodlands, to protect trees and to maintain the value of woodland edge habitats for birds, bats and reptiles. Connectivity of retained woodland habitats will be prioritised during the design process.
- Bat and bird boxes will be installed on trees in retained woodlands and a landscape management plan will ensure that the quality of retained habitats and their value for wildlife is maintained and enhanced.
- Future planning applications which seek to increase the permitted number of aircraft movements at the airport will include any necessary appropriate assessment to consider the likely effects on Thorne and Hatfield Moor SAC, as required by Policy CS6(d)2 of the Doncaster Core Strategy.
Safeguarding

Safeguarding issues

The safe operation of DSA and the aircraft that use it is of over-riding importance. This affects the operation of the airport in a number of ways. DSAL regularly reviews safeguarding measures, which seek to protect flight paths and air space around DSA from potential hazards. It undertakes ongoing risk assessment of all operational aspects and airport safety has been carefully taken into account in formulating this masterplan.

DSA is a ‘safeguarded’ airport, which means, for example, that it must be consulted by the planning authority on proposals that may lead to an increased chance of aircraft flying into a flock of birds (bird hazard) or involve tall structures that could affect aircraft movements. The Joint DfT/ODPM ‘Circular 1/2003’ (2003) identifies the arrangements for safeguarding aerodromes:

“Certain civil airports, selected on the basis of their importance to the national air transport system, are therefore officially safeguarded, in order to ensure that their operation and development are not inhibited by buildings, structures, erections or works which infringe protected surfaces, obscure runway approach lights or have the potential to impair the performance of aerodrome navigation aids, radio aids or telecommunication systems; by lighting which has the potential to distract pilots, or by developments which have the potential to increase the number of birds or the bird hazard risk.”

The airport company works with adjacent Local Planning Authorities to ensure that DSA is properly safeguarded. Safeguarded areas for bird hazard extend for a 15km radius of an airport. A 30km radius applies for wind turbine development.

DSAs safeguarding maps include parts of the Local Authority areas of Doncaster, Rotherham, West Lindsey, Bassetlaw and North Lincolnshire, whilst wind farm safeguarding extends further to parts of East Riding of Yorkshire, Derbyshire Dales, Bolsover, Newark and Sherwood, Mansfield, Sheffield, Barnsley, Selby and Wakefield council districts.

The Circular identifies the requirement for Local Planning Authorities to consult an airport operator in respect of development that may affect aerodrome safeguarding. It identifies at paragraph 28 that Development Plans should:

“include a policy stating that officially safeguarded areas have been established for a particular airport, that certain planning applications will be the subject of consultation with the operator of that aerodrome and that there may be restrictions on the height or detailed design of buildings or on development which might create a bird hazard.”

The Circular further advises Local Planning Authorities that the outer boundaries of the safeguarded areas should also be shown on their proposals maps within the preparation of their Local Development Framework (LDF).

Peel Airports considers wind farm development in the vicinity of all its airports in line with ‘CAP 764: CAA Policy and Guidelines on Wind Turbines’ and will respond to consultations on such schemes according to the likely effect on operations, including effects on radar performance.

Also considered are all proposed developments within the 15km bird hazard safeguarding zone that have the potential to attract large flock forming birds, in accordance with ‘CAP 738 Safeguarding of Aerodromes’ and ‘CAP 772 Bird Strike Management for Aerodromes’. Such developments may include landfill operations and areas of open water. DSAL is consulted on all planning applications for these types of development and in some cases, is consulted by developers before an application is submitted and this is welcomed.

DSAL holds a database of land use and bird survey data in the form of a Geographic Information System, which is used to inform consultations on planning applications in relation to bird strike hazard. Land use and bird survey data is updated regularly.

DSAL works with local landowners to ensure bird hazards are minimised in the immediate vicinity of the DSA site, where aircraft are at low altitudes when arriving and departing the runway and the potential for bird strike is greatest.
Public safety zones

The main instrument of Government policy with respect to the control of this risk is the establishment of Public Safety Zones (PSZ) extending from each runway end. The basic policy objective is that there should be no increase in the number of people living, working or congregating in PSZs and that, over time, the number should be reduced as circumstances allow. In the White Paper Progress Report, the Department for Transport (DfT) announced that it will review PSZ boundaries at all UK airports to take account of the publication of airport masterplans. The PSZ boundaries, when they are drawn will, enclose an area approximating the 1 in 100,000 pa IR risk contour. These are usually based upon a 15-year timeframe.

In addition to the control of risk by means of PSZs, the Government wishes to see the emptying of all occupied residential properties and of all commercial and industrial properties occupied as normal all-day workplaces within the area in which the individual risk is greater than 1 in 10,000 pa. The traffic figures in the 2037 masterplan indicate there is no change to the assumptions within the 2008 masterplan and that no properties are expected to fall within the 1 in 10,000 pa risk contour at either end of the runway at DSA.

The risk posed to hazardous installations in the vicinity of DSA due to aircraft accidents has also been fully considered with reference to detailed scheduling information and compared to the existing level of risk and relevant Health and Safety Executive criteria.

On occasion, damage to property near runway ends can be caused by wake vortex effects of aircraft using DSA. The airport has in place a Vortex Damage Rectification Scheme, which sets out the procedures to be followed by the airline operator and DSAL should such an event take place.

Properties severely affected by noise

The most recent government guidance sets out certain measures which it wishes to see adopted by all relevant airports to address existing aircraft noise and the impacts of future growth.

These measures address both acoustic insulation schemes and assistance with relocation or offers to purchase. DSA already has in place an acoustic insulation scheme, which is periodically reviewed in consultation with DMBC and the Noise Monitoring Sub-Committee of the Airport Consultative Committee.

In respect of existing aircraft noise, where households experience high levels of aircraft noise (69 dB $L_{Aeq},16h$ or more), the Government expects airport operators to offer assistance with the costs of relocating. There are currently no households around DSA subject to such high levels of aircraft noise.

The impact of future airport growth

In respect of future airport growth, the Government expects consideration to be given towards people who suffer an increase in noise due to major airport development. This includes offering financial assistance towards acoustic insulation for any property which suffers from a medium to high level of noise (63 dB $L_{Aeq},16h$ or more). The airport’s SIG5 already has a criterion which meets the Government’s insulation requirement.

Although increases in noise are forecast with the proposed development, no properties are forecast to experience levels of aircraft noise of 69 dB $L_{Aeq},16h$ or more in the future. Consequently there will be no need to purchase property having due regard to the Government criteria.
Economic impact of the masterplan

Economic role of DSA

To improve its position as a key economic driver for growth in Sheffield City Region, Doncaster Borough is focused on enhancing its city region scale assets. The last ten years have seen a number of very positive investments that are raising the Borough’s performance towards a higher value economy. These include significant achievements in investment at Doncaster Racecourse, iPort, the growth at DSA and the recently established HS2 rail college.

In economic terms however, further efforts will be needed to catch up with city region economic and labour market averages and at present there is a deficit of around 10,000 jobs and 500 businesses in the Borough.

As the international gateway to Sheffield City Region (SCR), DSA has been identified as one of the city region’s top four spatial priorities. The SCR Growth Plan (2014) set an ambition for creating 70,000 new private sector jobs and 6,000 new businesses by 2025.

The Growth Plan identifies the DSA site as providing “an international gateway that attracts aero related employment and training”.

It also identifies the DSA corridor as one of a small number of locations identified as ‘Areas of Growth and Change’ with DSA itself being “a catalyst for business development, inward investment and job creation with regard to logistics, engineering and associated aviation activities”.

Most recently, DSA is recognised by SCR’s Integrated Infrastructure Plan (October 2016) alongside the Advanced Manufacturing Innovation District as one of the top two strategic investment locations.

An independent economic impact assessment of the masterplan has been prepared by Genecon and this shows that there is the capacity at ACY, encompassing DSA, to become the largest employment centre in Sheffield City Region.

A review of the economic evidence assembled by the Council reveals that:

- Doncaster experienced strong rates of job growth in the pre-recessionary period. Post-recession it is apparent that Doncaster is enjoying a rapid economic recovery with job growth of 1.4% per annum between 2009 and 2014
- Doncaster is well positioned to deliver further economic growth over the Local Plan period and in the context of the 70,000 jobs which the SCR Growth Plan targets for the city region
- DSA clearly has a significant role to play in generating new private sector employment opportunities to achieve this growth, with the SCR SEP expressly identifying the airport corridor as one of its key spatial areas of growth and change
- Planning positively for this level of growth will deliver significant economic benefits and meet the economic needs of the area, not least the on-going need to create employment opportunities and tackle issues of unemployment and economic inactivity
Airport growth potential

Expanding and sustaining passenger and cargo growth will be critical to ensuring the delivery of the masterplan.

In February 2016, Aviation Economics were commissioned to produce 20-year aviation traffic forecasts for DSA. In doing so, Aviation Economics developed two scenarios – a high case and core growth scenario - which considered the levels of medium and long-term additional passenger and cargo throughput that could be achieved. The scenarios were informed by Civil Aviation Authority (CAA) survey data and assumptions developed for DSA’s future market share on a route basis.

<table>
<thead>
<tr>
<th>CORE GROWTH SCENARIO KEY BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Delivery of up to 203,106 sq m of new commercial development (landside and airside) by 2037</td>
</tr>
<tr>
<td>→ New or extended terminal capacity</td>
</tr>
<tr>
<td>→ Delivery of 1,150 new dwellings by 2028</td>
</tr>
<tr>
<td>→ AMRC Satellite opportunity partially realised</td>
</tr>
<tr>
<td>→ MRO opportunity fully realised</td>
</tr>
<tr>
<td>→ Two additional 100-bed hotels</td>
</tr>
<tr>
<td>→ Passenger growth to 4.68 million by 2037</td>
</tr>
<tr>
<td>→ Cargo growth to 69,562 tonnes by 2037</td>
</tr>
<tr>
<td>→ c. 7,800 gross new jobs, £900 million of construction investment</td>
</tr>
<tr>
<td>→ Economic benefit of £3.7 billion GVA by 2037</td>
</tr>
<tr>
<td>→ £159 million boost to the regions’ tourism economy, including 565 jobs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HIGH GROWTH SCENARIO KEY BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>→ Delivery of up to 347,669 sq m of new commercial development (landside and airside) by 2037</td>
</tr>
<tr>
<td>→ New or extended terminal capacity</td>
</tr>
<tr>
<td>→ Delivery of 2,000 new dwellings by 2028</td>
</tr>
<tr>
<td>→ AMRC Satellite and MRO opportunities fully realised</td>
</tr>
<tr>
<td>→ Four additional 100-bed hotels</td>
</tr>
<tr>
<td>→ Passenger growth to 7.23 million by 2037 (from 1.3 million in 2016/17)</td>
</tr>
<tr>
<td>→ Cargo growth to 176,544 tonnes by 2037 (from 4,000 tonnes in 2016/17)</td>
</tr>
<tr>
<td>→ c. 13,000 new jobs, £1.6 billion of construction investment</td>
</tr>
<tr>
<td>→ Economic benefit of £6.5 billion GVA by 2037</td>
</tr>
<tr>
<td>→ £238 million boost to the region’s tourism economy, including 945 jobs</td>
</tr>
</tbody>
</table>
Number of jobs created by the masterplan – gross jobs potential

Genecon’s independent economic impact assessment has been carried out using a bespoke Economic Benefits Model which has been developed to support the assessment of those impacts. The model considers both construction-related and operational Full Time Equivalent (FTE) employment effects.

Economic benefits have been considered at the Sheffield City Region area level. In keeping with existing traffic forecasts developed for the airport, the overall benefit period used in the assessment is 21 years (2017–2037). Benefits have been expressed at key dates throughout the period – over 5, 10 and 15 year horizons.

There are a number of identified benefit streams from which employment effects will flow:

- Investment in construction-related activities
- Business occupation of commercial development
- Spending of residents of new housing
- Spending of inbound visitors to SCR

Economic modelling of each of the above benefit streams has been undertaken to arrive at estimates of gross employment effects at milestone dates.

Core growth scenario economic benefit summary

- For construction-related effects, it is estimated that an investment of £907 million will be required to deliver the masterplan proposals. Based on an average turnover per job in the construction sector in Yorkshire and Humber, it is estimated that this investment will support a total of 6,804 gross job years (680 FTE jobs) which will provide a sustained pipeline of investment in the local, regional and national construction sector.

- Based on HCA floorspace per job densities, existing airport-related jobs at DSA and known similar developments elsewhere, it is estimated that there is capacity for a further c. 5,500 gross operational FTE jobs, over and above the c. 1,000 jobs already located at the DSA site.

- Average annual spending by Doncaster residents has informed the assessment of housing effects. It is estimated that a further 152 gross induced FTE jobs could be supported annually by the local spending of residents taking up occupancy in the new housing.

- Based on average inbound visitor spending and assumptions regarding the proportion of spending that could be retained within Sheffield City Region, it is estimated that the spending of inbound visitors could support a further 638 gross FTE jobs annually by 2037.
Core growth case scenario – gross FTE job estimates by Milestone Date

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Gross FTE jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>By 2021</td>
</tr>
<tr>
<td>Construction-related</td>
<td></td>
</tr>
<tr>
<td>£907 million investment</td>
<td>174</td>
</tr>
<tr>
<td>Commercial development (landside)</td>
<td></td>
</tr>
<tr>
<td>62,530 sq m NIA manufacturing / light industrial</td>
<td>620</td>
</tr>
<tr>
<td>132,847 sq m NIA distribution</td>
<td>0</td>
</tr>
<tr>
<td>3,504 sq m NIA office / light manufacturing</td>
<td>64</td>
</tr>
<tr>
<td>4,225 sq m NIA manufacturing</td>
<td>57</td>
</tr>
<tr>
<td>Two 100-bed hotels</td>
<td>27</td>
</tr>
<tr>
<td>Commercial development (airside)</td>
<td></td>
</tr>
<tr>
<td>9,964 sq m GEA Aprons</td>
<td>0</td>
</tr>
<tr>
<td>16,305 sq m NIA Cargo Terminal</td>
<td>0</td>
</tr>
<tr>
<td>AMRC Satellite</td>
<td>0</td>
</tr>
<tr>
<td>MRO</td>
<td>0</td>
</tr>
<tr>
<td>Dwellings (landside)</td>
<td></td>
</tr>
<tr>
<td>1,150 new dwellings</td>
<td>17</td>
</tr>
<tr>
<td>Passenger growth related</td>
<td></td>
</tr>
<tr>
<td>4.68 million by 2037 (from 1.3 million in 2016/17)</td>
<td>389</td>
</tr>
<tr>
<td>Inbound visitor spending</td>
<td></td>
</tr>
<tr>
<td>567,000 inbound visitors by 2037 (from 195,000 in 2016/17)</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>1,482</td>
</tr>
</tbody>
</table>
## High growth case scenario – gross FTE job estimates by Milestone Date

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Gross FTE Jobs</th>
<th>By 2021</th>
<th>By 2026</th>
<th>By 2031</th>
<th>By 2037</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Construction-related</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>£1.66 billion investment</td>
<td></td>
<td>313</td>
<td>963</td>
<td>1,230</td>
<td>1,269</td>
</tr>
<tr>
<td><strong>Commercial development (landside – logistics park)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7,445 sq m NIA office</td>
<td></td>
<td>0</td>
<td>299</td>
<td>496</td>
<td>496</td>
</tr>
<tr>
<td>214,358 sq m NIA distribution</td>
<td></td>
<td>0</td>
<td>1,483</td>
<td>2,099</td>
<td>2,099</td>
</tr>
<tr>
<td>53,303 sq m NIA manufacturing</td>
<td></td>
<td>0</td>
<td>1,082</td>
<td>1,082</td>
<td>1,082</td>
</tr>
<tr>
<td><strong>Commercial development (landside – other development)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>43,290 sq m NIA light industrial</td>
<td></td>
<td>59</td>
<td>866</td>
<td>866</td>
<td>866</td>
</tr>
<tr>
<td>2,925 sq m NIA manufacturing</td>
<td></td>
<td>73</td>
<td>73</td>
<td>73</td>
<td>73</td>
</tr>
<tr>
<td>2,426 sq m NIA office / manufacturing</td>
<td></td>
<td>65</td>
<td>88</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>Four 100-bed hotels</td>
<td></td>
<td>27</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
<tr>
<td><strong>Commercial development (airside)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23,226 sq m GEA Aprons</td>
<td></td>
<td>40</td>
<td>120</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>41,807 sq m NIA Cargo Terminal</td>
<td></td>
<td>78</td>
<td>233</td>
<td>389</td>
<td>389</td>
</tr>
<tr>
<td>AMRC Satellite</td>
<td></td>
<td>0</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>MRO</td>
<td></td>
<td>0</td>
<td>1,180</td>
<td>1,180</td>
<td>1,180</td>
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<tr>
<td><strong>Dwellings (landside)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,000 new dwellings</td>
<td></td>
<td>59</td>
<td>206</td>
<td>294</td>
<td>294</td>
</tr>
<tr>
<td><strong>Passenger growth related</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.2 million by 2037 (from 1.3 million in 2016/17)</td>
<td></td>
<td>477</td>
<td>1,484</td>
<td>2,351</td>
<td>3,544</td>
</tr>
<tr>
<td><strong>Inbound visitor spending</strong></td>
<td></td>
<td>158</td>
<td>416</td>
<td>639</td>
<td>945</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>1,752</td>
<td>8,886</td>
<td>11,385</td>
<td>13,032</td>
</tr>
</tbody>
</table>
The delivery of the masterplan and the commercial operation of the DSA estate will take place within the wider place dynamics of Sheffield City Region’s labour market and economy. In line with HM Treasury Green Book guidelines, consideration has therefore been given to the levels of net additionality from the proposals. The net additional considerations are outlined in full detail in Genecon’s Economic Impact Assessment.

Applying the above adjustments to gross employment effects generates an estimate of the net additional employment benefits to the Sheffield City Region that will arise from the delivery of the masterplan and operational activities at the DSA estate.

### Core growth case scenario – net FTE employment effects to Sheffield City Region

<table>
<thead>
<tr>
<th></th>
<th>Construction</th>
<th>Commercial operations (landside)</th>
<th>Commercial occupations (airside)</th>
<th>Passenger-related</th>
<th>Resident spending</th>
<th>Visitor spending</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>By 2021</td>
<td>108</td>
<td>829</td>
<td>0</td>
<td>364</td>
<td>12</td>
<td>121</td>
<td>1,434</td>
</tr>
<tr>
<td>By 2026</td>
<td>227</td>
<td>1,761</td>
<td>1,061</td>
<td>1,054</td>
<td>73</td>
<td>291</td>
<td>4,517</td>
</tr>
<tr>
<td>By 2031</td>
<td>375</td>
<td>2,439</td>
<td>1,942</td>
<td>1,439</td>
<td>110</td>
<td>385</td>
<td>6,690</td>
</tr>
<tr>
<td>By 2037</td>
<td>423</td>
<td>2,975</td>
<td>1,980</td>
<td>1,938</td>
<td>110</td>
<td>508</td>
<td>7,934</td>
</tr>
</tbody>
</table>

### High growth case scenario – net FTE employment effects to Sheffield City Region

<table>
<thead>
<tr>
<th></th>
<th>Construction</th>
<th>Commercial operations (landside)</th>
<th>Commercial occupations (airside)</th>
<th>Passenger-related</th>
<th>Resident spending</th>
<th>Visitor spending</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>By 2021</td>
<td>313</td>
<td>679</td>
<td>144</td>
<td>447</td>
<td>59</td>
<td>142</td>
<td>1,647</td>
</tr>
<tr>
<td>By 2026</td>
<td>963</td>
<td>4,494</td>
<td>2,367</td>
<td>1,389</td>
<td>206</td>
<td>375</td>
<td>9,071</td>
</tr>
<tr>
<td>By 2031</td>
<td>1,230</td>
<td>5,079</td>
<td>2,655</td>
<td>2,200</td>
<td>294</td>
<td>575</td>
<td>11,485</td>
</tr>
<tr>
<td>By 2037</td>
<td>1,269</td>
<td>5,196</td>
<td>2,655</td>
<td>3,317</td>
<td>294</td>
<td>850</td>
<td>13,018</td>
</tr>
</tbody>
</table>
Value added to the economy

To estimate the effects of net additional labour market gains on the performance of the Sheffield City Region economy, the Economic Benefits Model includes an assessment of GVA – a measure of productivity. Cumulative GVA impacts over time have also been expressed in present value terms by applying an annual discount factor of 3.5% to the GVA achieved. This follows the principles set out in HM Treasury Green Book.

It is considered that operational FTE jobs will persist for at least 10 years and that construction-related, resident and visitor spending effects will support jobs annually.

It is estimated that the delivery and operation of the DSA masterplan core growth scenario will generate a total of £3.7 billion in GVA to the Sheffield City Region economy by 2037, £2.5 billion in net present value terms.

The table below outlines the GVA that could be achieved by benefit group by milestone dates.

### Core growth case scenario – cumulative GVA gains and GVA at NPV (in millions)

<table>
<thead>
<tr>
<th></th>
<th>Construction</th>
<th>Commercial operations (landside)</th>
<th>Commercial operations (airside)</th>
<th>Passenger-related</th>
<th>Resident spending</th>
<th>Visitor spending</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>By 2021</td>
<td>GVA</td>
<td>£25</td>
<td>£43</td>
<td>£0</td>
<td>£32</td>
<td>£1</td>
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<tr>
<td></td>
<td>NPV</td>
<td>£23</td>
<td>£40</td>
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<td>By 2026</td>
<td>GVA</td>
<td>£63</td>
<td>£323</td>
<td>£109</td>
<td>£196</td>
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<td></td>
<td>NPV</td>
<td>£55</td>
<td>£266</td>
<td>£84</td>
<td>£178</td>
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<td>By 2031</td>
<td>GVA</td>
<td>£85</td>
<td>£711</td>
<td>£915</td>
<td>£435</td>
<td>£34</td>
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<td></td>
<td>NPV</td>
<td>£70</td>
<td>£532</td>
<td>£634</td>
<td>£359</td>
<td>£25</td>
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<td>By 2037</td>
<td>GVA</td>
<td>£96</td>
<td>£1,042</td>
<td>£1,728</td>
<td>£659</td>
<td>£52</td>
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<td>£76</td>
<td>£720</td>
<td>£1,104</td>
<td>£501</td>
<td>£35</td>
<td>£2,542</td>
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### High growth case scenario – cumulative GVA gains and GVA at NPV (in millions)

<table>
<thead>
<tr>
<th></th>
<th>Construction</th>
<th>Commercial operations (landside)</th>
<th>Commercial operations (airside)</th>
<th>Passenger-related</th>
<th>Resident spending</th>
<th>Visitor spending</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>By 2021</td>
<td>GVA</td>
<td>£44</td>
<td>£38</td>
<td>£5</td>
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<td>£35</td>
<td>£4</td>
<td>£37</td>
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<tr>
<td>By 2026</td>
<td>GVA</td>
<td>£135</td>
<td>£520</td>
<td>£681</td>
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<td></td>
<td>NPV</td>
<td>£116</td>
<td>£419</td>
<td>£535</td>
<td>£216</td>
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<tr>
<td>By 2031</td>
<td>GVA</td>
<td>£173</td>
<td>£1,409</td>
<td>£2,170</td>
<td>£614</td>
<td>£67</td>
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<td></td>
<td>NPV</td>
<td>£142</td>
<td>£1,029</td>
<td>£1,556</td>
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<td>£49</td>
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<tr>
<td>By 2037</td>
<td>GVA</td>
<td>£179</td>
<td>£1,921</td>
<td>£3,002</td>
<td>£1,043</td>
<td>£92</td>
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<td>£2,050</td>
<td>£700</td>
<td>£64</td>
<td>£4,446</td>
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</table>
High growth case vs core growth case additional benefits

The two assessed growth scenarios for the proposed DSA masterplan will, if developed, support local economic growth in a significant way; through large scale jobs and GVA contributions. This is true for both the core growth case and the high growth case.

However, scheme development outputs from the two scenarios are also considerably different. The high growth scenario would provide approximately 5,000 more jobs and £2 billion more in GVA when compared to the core growth scenario of the DSA masterplan.

The difference between these two scenarios is detailed in the table below:

<table>
<thead>
<tr>
<th></th>
<th>High growth</th>
<th>Core growth</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross jobs</td>
<td>13,032</td>
<td>7,841</td>
<td>5,192</td>
</tr>
<tr>
<td>Net jobs</td>
<td>13,018</td>
<td>7,934</td>
<td>5,084</td>
</tr>
<tr>
<td>GVA</td>
<td>£6.5 billion</td>
<td>£3.7 billion</td>
<td>£2.7 billion</td>
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<tr>
<td>NPV</td>
<td>£4.5 billion</td>
<td>£2.5 billion</td>
<td>£2.0 billion</td>
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</tbody>
</table>
Core growth case scenario
– DSA development and gross FTE jobs growth potential by 2037

High growth case scenario
– DSA development and gross FTE jobs growth potential by 2037
7 Consultation and engagement
Public consultation

The public consultation will run for 8 weeks, closing for responses on the 16 May 2018.

Documents and accompanying maps are available to download from the DSA website: flydsa.co.uk/masterplan

You are invited to respond to the consultation via the website which includes an online form to complete.

Responses can also be sent via our dedicated email address: masterplan@flydsa.co.uk

or via post to:
Masterplan Consultation
Doncaster Sheffield Airport Limited
Heyford House
First Avenue
Doncaster DN9 3RH

The airport will be undertaking a series of roadshows across the catchment area to which people can attend to hear more about the masterplan and pose any questions.

Public drop-in sessions

<table>
<thead>
<tr>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheffield College – Silver Plate Restaurant (S2 2RL)</td>
<td>18 April 2018</td>
</tr>
<tr>
<td>Rotherham College</td>
<td>23 April 2018</td>
</tr>
<tr>
<td>Wentworth Building (S65 1EG)</td>
<td>23 April 2018</td>
</tr>
<tr>
<td>Sheffield Hallam University</td>
<td>24 April 2018</td>
</tr>
<tr>
<td>Owen Building (S1 1WB)</td>
<td>24 April 2018</td>
</tr>
<tr>
<td>Yorkshire Wildlife Park - Safari Village (DN4 6TB)</td>
<td>26 April 2018</td>
</tr>
<tr>
<td>Rossington All Saints Academy (DN11 0BZ)</td>
<td>1 May 2018</td>
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<tr>
<td>Barnsley Digital Media Centre (S70 2JW)</td>
<td>8 May 2018</td>
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<tr>
<td>North Notts College, Worksop (S81 7HP)</td>
<td>10 May 2018</td>
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<tr>
<td>Yorkshire Wildlife Park - Safari Village (DN4 6TB)</td>
<td>13 May 2018</td>
</tr>
</tbody>
</table>

Further venues may be added, see flydsa.co.uk/masterplan for the latest information

Acknowledgement of responses

Email and online form responses will be electronically acknowledged by an automatic response.

Responses sent by post will not be acknowledged; if confirmation of receipt is required please use a recorded delivery service. Responses received after the closing date will be logged and stored but not analysed.

We will not enter into correspondence with individual respondents on issues relating to this consultation other than to answer clarifying questions until the consultation period has ended and all responses have been collated and analysed.

DSA will not disclose any personal details or content of individual responses to any third parties and will treat all responses with due care and sensitivity.

Airport Consultative Committee

The Consultative Committee at DSA is the forum via which the management of the airport interacts and exchanges information and ideas with nearby local authorities, local business representatives and other airport users and / or interested parties. The Airport Consultative Committee will be a key consultee as part of the consultation period.

Since 2005, the committee has been facilitated by South Yorkshire Joint Authorities Governance Unit. These officers are the appointed secretaries to the committee and are responsible for servicing all meetings. DSA agreed to the establishment of a Consultative Committee in 2005.
As stated in the government’s guidelines on Consultative Committees, the aim is to provide an effective forum for the discussion of all matters concerning the development or operation of the airport, “which have an impact on the users of the aerodrome and on people living and working in the surrounding area”.

The government expects all aerodromes to communicate openly and effectively with their local communities and users of the airport about the impact of their operations. The Doncaster Sheffield Airport Consultative Committee provides the mechanism for the exchange of information between the airport operator, users of the airport, local authorities in the vicinity of the airport and other organisations surrounding the airport which have an interest in the operations and management of the airport.

Specifically, the committee is:

- To foster communication and build understanding between the airport, its users, local residents and the business community
- To stimulate the interest of the local population in the development of the airport
- To consider the impact of the airport operation on the environment, surface access, employment, the local and regional economy, and the circumstances of local communities and their residents
- To monitor the implementation of the airport operator’s commitments made under the S106 Agreement between the airport operator and Doncaster Metropolitan Borough Council
- To consider and comment upon consultative reports, as required
- To facilitate constructive discussion to resolve differences, when required

Friends of Doncaster Sheffield Airport

The Friends of Doncaster Sheffield Airport (FODSA) group was established in February 2005. The founding members had previously been part of the FLY (Finningley Locals says Yes) group which was formed in 1998 by people who wanted the old Finningley RAF base to be turned into an international airport. The FODSA group followed in the footsteps of the Friends of Liverpool Airport group.

The aim of the FODSA group is to promote DSA at every opportunity. This includes encouraging its preservation, development and also its improvement. The group help to inform public opinion by providing independent advice and information on the airport and its surrounding activities.

Monthly meetings are held for members and they have regular visits to places of interest. A quarterly newsletter is also produced. FODSA has a representative that attends the Airport Consultative Committee / Noise Monitoring Sub Committee and also a representative that attends the Airport Emergency Planning Committee. In summer 2014, FODSA took on the role of Airport Ambassadors where they welcomed and assisted visitors and passengers so they had a stress-free journey through the airport. FODSA will be a key consultee as part of the consultation period.
8 Glossary and abbreviations
Glossary

**Aircraft Movement**

An aircraft taking off or landing at an airport. For aircraft traffic purposes, one arrival and one departure are counted as two movements.

**Aircraft Stand**

A position on the apron at which aircraft can be located where all normal servicing activities are carried out, including the enplaning and deplaning of passengers. Stands may be remote or adjacent to the terminal building.

**Air Taxi Movement**

Movement by an aircraft of less than 15 tonnes MTWA operating on a non-scheduled service. These are predominantly sole-use charter operations.

**Air Transport Movement**

Landing or take-offs of aircraft engaged on the transport of passengers, cargo or mail on commercial terms. All scheduled movements, including those operated empty, loaded charter and air taxi movements are included.

**Ambient Noise**

The totally encompassing sound in a given situation at a given time usually composed of sound from many sources near and far. This is usually represented by the equivalent continuous sound level ($L_{Aeq}(T)$).

**Apron**

A defined area on the aerodrome provided for the stationing of aircraft for the embarkation of passengers, the loading and unloading of baggage and cargo and for aircraft parking.

**“A” Weighted Decibel (dB(A))**

Internationally accepted unit for most noise measurement and represents the sound pressure level weighted to correspond to the frequency response of the human ear. A difference of 3dB(A) may just be noticeable and a difference of 10dB(A) represents a doubling or halving of subjective loudness.

**Background Noise**

The underlying sound in a given situation at a given time usually composed of sound from many distant sources. This is usually represented by the sound level exceeded for 10% the time ($L_{A90}(T)$).

**Belly-hold**

Freight carried in the hold of a passenger aircraft.

**Cargo Movement**

Cargo Movement is a flight carrying solely freight and/or mail and associated cargo attendants.

**Continuous Descent Approach**

A method by which aircraft approach airports prior to landing, designed to reduce fuel burn and noise compared with a conventional stepped approach. It involves maintaining a constant angle during descent.

**Decibel (dB)**

Logarithmic ratio used to relate a sound pressure level to a standard reference level.

**Domestic Services**

Are services flown entirely within the United Kingdom, Isle of Man and Channel Islands.
European Aviation Safety Agency

The European Aviation Safety Agency (EASA) has been established to promote the highest common standards of safety and environmental protection in civil aviation. It is intended to be the centrepiece of a new cost-efficient regulatory system in Europe and a reliable partner for equivalent authorities throughout the world.

Freight

Is the weight of property carried on an aircraft, including: e.g. the weight of vehicles, excess baggage and diplomatic bags, but excluding mail and passengers’ and crews’ permitted baggage. Freight in transit through the airport on the same aircraft is excluded.

Gross Value Added

Estimated annual financial contribution to the economy arising from the development.

Instrument Landing System

A precise navigation system for aircraft used under instrument flight rules.

L_{Aeq}(T) – Equivalent Continuous Sound Level

L_{Aeq}, 16h – Equivalent Continuous Sound Level is a notional steady sound level which would cause the same A-weighted sound energy to be received as that due to the actual and possibly fluctuating sound from 0700 to 2300 (day-time). It can also be used to relate periods of exposure and noise level. Thus, for example, a halving or doubling of the period of exposure is equivalent in sound energy to a decrease or increase respectively of 3dB(A) in the sound level for the original period.

L_{Amax} – Maximum Sound Level

The maximum sound level measured on the A-weighted scale occurring during an (aircraft) event.

Northern Powerhouse

The Northern Powerhouse is the Government ambition to bring together the cities, towns and rural communities of the North of England and Wales to become a powerhouse for the UK economy. This will be achieved with modern transport links, a revolutionary new style of governance and increased investment.

Section 106 Agreement

A legal agreement entered into by an applicant for planning permission and the Local Authority which sets out provisions linked to the grant of permission.

SEL – Sound Exposure Level

The Sound Exposure Level is a measure of noise from a single event which takes account of duration as well as intensity. It is the level which if maintained constant for a period of one second would deliver the same A weighted sound energy as a given noise event.

Sheffield City Region

Collection of nine unitary authorities consisting of Sheffield, Doncaster, Barnsley, Rotherham, Chesterfield, North East Derbyshire, Bolsover, Derbyshire Dales and Bassetlaw.

Sheffield City Region Combined Authority

The Sheffield City Region Combined Authority is the combined authority for South Yorkshire. It is established under the Local Democracy, Economic Development and Construction Act 2009 with powers over transport, economic development and regeneration.

Taxiway

A defined path on an aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>ACC</td>
<td>Airport Consultative Committee</td>
</tr>
<tr>
<td>ACI</td>
<td>Airports Council International</td>
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<td>ACY</td>
<td>Aero Centre Yorkshire</td>
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<tr>
<td>AOA</td>
<td>Airport Operators Association</td>
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<td>AQMA</td>
<td>Air Quality Management Area</td>
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<td>ASAS</td>
<td>Airport Surface Access Strategy</td>
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<td>Air Transport Aviation Group</td>
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<td>ATC</td>
<td>Air Traffic Control</td>
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<td>Airport Transport Forum</td>
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<td>Air Transport Movement</td>
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<td>AURN</td>
<td>Automatic Urban and Rural Network</td>
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<td>BGS</td>
<td>British Geological Survey</td>
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<td>CA</td>
<td>Combined Authority</td>
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<td>CAA</td>
<td>Civil Aviation Authority</td>
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<td>CAGR</td>
<td>Compound Annual Growth Rate</td>
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<td>CDA</td>
<td>Continuous Descent Approach</td>
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<td>dB</td>
<td>Decibel</td>
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<td>DETR</td>
<td>Department of the Environment, Transport and the Regions</td>
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<td>DEFRA</td>
<td>Department of the Environment, Food and Rural Affairs</td>
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<td>DEO</td>
<td>Defence Estates Organisation</td>
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<td>Department for Transport</td>
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<td>Doncaster Metropolitan Borough Council</td>
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<td>Development Plan Document</td>
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<td>EASA</td>
<td>European Aviation Safety Agency</td>
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<td>ECML</td>
<td>East Coast Mainline</td>
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<td>Environmental Impact Assessment</td>
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<td>EMS</td>
<td>Environmental Management Strategy</td>
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<td>ERDF</td>
<td>European Regional Development Fund</td>
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<td>EU</td>
<td>European Union</td>
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<td>F&amp;D</td>
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<td>FARRRS</td>
<td>Finningley and Rossington Regeneration Route Scheme</td>
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<td>Fixed Base Operator</td>
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<td>Full-time Equivalent</td>
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<td>Gross Domestic Product</td>
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<td>Ground Power Unit</td>
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<td>Gross Value Added</td>
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<td>Great Yorkshire Way</td>
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<td>ha</td>
<td>Hectares</td>
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<td>HGV</td>
<td>Heavy Goods Vehicle</td>
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<td>IATA</td>
<td>International Air Transport Association</td>
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<td>ICAO</td>
<td>International Civil Aviation Organisation</td>
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<td>ILS</td>
<td>Instrument Landing System</td>
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<tr>
<td>L_{Aeq,T}</td>
<td>Equivalent “A” weighted Continuous Sound Pressure Level over specified time T</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
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<td>---------</td>
<td>-------------</td>
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<tr>
<td>L&lt;sub&gt;max&lt;/sub&gt;</td>
<td>Maximum “A” Weighted Sound Pressure Level</td>
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<td>Local Enterprise Partnership</td>
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<td>Local Planning Authority</td>
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<td>Landing and Taking Off</td>
</tr>
<tr>
<td>LTP</td>
<td>Local Transport Plan</td>
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<tr>
<td>MOD</td>
<td>Ministry of Defence</td>
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<tr>
<td>MPPA</td>
<td>Million Passengers Per Annum</td>
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<td>Maintenance Repair and Overhaul</td>
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<td>MSCP</td>
<td>Multi-Storey Car Park</td>
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<td>MTOW</td>
<td>Maximum Take-off Weight</td>
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<td>MTWA</td>
<td>Maximum Take-off Weight Allowed</td>
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<td>National Air Traffic Services</td>
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<tr>
<td>nm</td>
<td>Nautical Mile</td>
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<td>NO&lt;sub&gt;2&lt;/sub&gt;</td>
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<td>Office for National Statistics</td>
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<td>Parish Council</td>
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<td>Public Safety Zone</td>
</tr>
<tr>
<td>PU/DO</td>
<td>Pick Up/Drop Off</td>
</tr>
<tr>
<td>QC</td>
<td>Quota Count</td>
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<td>Sound Exposure Level</td>
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<td>Sq ft</td>
<td>Square feet</td>
</tr>
<tr>
<td>Sq m</td>
<td>Square metres</td>
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<tr>
<td>SSI</td>
<td>Site of Scientific Interest</td>
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<td>SSSI</td>
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<td>STAR</td>
<td>Standard Arrival Routes</td>
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<tr>
<td>SWOT</td>
<td>Strengths, Weaknesses, Opportunities and Threats</td>
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<td>South Yorkshire Passenger Transport Executive</td>
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<tr>
<td>TMA</td>
<td>Terminal Movement Area</td>
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<td>μg/m&lt;sub&gt;3&lt;/sub&gt;</td>
<td>Micrograms Per Cubic Meter</td>
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<td>UK Aeronautical Information Package</td>
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<tr>
<td>VCR</td>
<td>Visual Control Room</td>
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<td>WWTW</td>
<td>Waste Water Treatment Works</td>
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</tbody>
</table>
9 Plans
Doncaster Sheffield Airport – masterplan 2018–2037
Plan 2: Woodland structure

Existing woodland

Existing woodland outside masterplan area
Plan 3: Local linkages map

- Pedestrian routes
- Cycle routes
- Bridleways
- Quiet lanes
- Green lanes
- Bus stops within masterplan area
- Proposed railway station
Plan 4: Environmental context

Doncaster Sheffield Airport – masterplan 2018–2037

The area of the updated masterplan

- Listed buildings
- Conservation area - Heritage
- Existing forestry
- PROW

Agricultural land Classification Grades

- Non agricultural use
- Grade 3
- AAR
- Runway and hardstanding areas
Plan 5:
Draft masterplan 2018
Plan 6: Draft masterplan 2037
Plan 7: Land use

- Cargo South
- GA South
- Passenger terminal, car parking and public transport
- GA North
- Cargo North
- Cargo South
- Car parking
- MRO campus and innovation district
- Advanced manufacturing and logistics
- Future residential and living
- Hotel, retail and leisure
- Great Yorkshire Way M18 J3
- Safeguarded rail corridor
- Proposed solar farm

Doncaster Sheffield Airport – masterplan 2018–2037
Doncaster Sheffield Airport was voted best small airport by Which? members in an online survey undertaken in April/May 2017

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