

Appendix A

– Birmingham Airport 2018

Located 10 miles from the city centre, Birmingham Airport is one of the UK's premier airports and the third largest airport outside of London. Birmingham is the UK's second largest city and the West Midlands Combined Authority Area has a population of 2.8 million, with the Airport's core catchment area of the wider Midlands region representing a major economic hub.

The Airport is one of the UK's most accessible. It is central to the national motorway system, with the M42 and M6 on our doorstep, providing excellent connectivity for car and coach travel. However, the location can also be a challenge, with the volume of local road traffic, combined with national road traffic passing through the Midlands, frequently exceeding the capacity of the current road network and causing gridlock, particularly if there is any sort of incident or major event.

For rail transport, we are the only UK airport directly connected to the national rail network. This is via a two-minute free 'Air-Rail' link to Birmingham International Station which directly serves more than 100 further destinations. These include seven services an hour for the 10-minute journey to and from Birmingham New Street Station which provides an onwards connection with the rest of the country, and up to six services an hour to central London in as little as 70 minutes.

Being situated at the heart of the country's road and rail networks means around 10 million people live within 60 minutes travel of the Airport and some 35 million people live within two hours travel.

Ownership

The Airport is a regional asset, meeting the needs of the Midlands. We are 49% owned by the seven West Midlands Metropolitan District Councils. 48.25% is owned by private investors, led by Ontario Teachers' Pension Plan, with the remaining 2.75% owned by our employees.

Investment

We have been an international gateway to the Midlands for almost 80 years and continue to grow and invest. In the last 10 years we have invested £300 million to expand and improve our infrastructure and services for passengers, including a runway extension, a new air traffic control tower, expansion of the security search area, the introduction of self-service check-in and the re-creation of a free drop-off car park.

Employment

Contributing to the region's economic success and productivity is vital to the strategy of our Airport and the communities we operate within:

- Today, 6,700 people are directly employed by companies located within the Airport boundary and a further 9,900 people are employed indirectly to supply goods and services to the Airport.
- The Airport also gives rise to a further 29,100 catalytic jobs associated with firms that choose to locate or expand in the area, with good accessibility to the Airport as a result of the air connectivity that the Airport offers. This equates to a total of 45,700 jobs gross.
- We invest significantly in training and skills development for our workforce, to boost productivity and sustain growth.
- Working with our partners, we aim to provide a safe, supportive and progressive employment environment with a culture of continuous development that maximises employees' potential and their contribution to our Airport's success.

Location map





Library of Birmingham

The city's library has become a tourist destination

Black Country Museum, Dudley

Award winning museum detailing the world's first industrial landscape

Airlines

We have a full range of carriers serving a short-haul, long-haul and domestic network:

- We are served by a balanced portfolio of airlines covering all main sectors.
- Our airline customer base allows flexibility for growth in the network.
- We have global connections via the three leading airline alliances (e.g. Star Alliance, Oneworld and SkyTeam) as well as with Emirates and Qatar.

The full economic potential of the region is being harnessed through the devolution of power and funding, the creation of the WMCA, the election of the region's first Mayor, major developments such as HS2 and the regeneration of Birmingham city centre.

The Airport seeks to capitalise on its strengths through the development of its route network and services, delivered by a diversified group of airlines across the scheduled, long haul, low cost and charter sectors. In addition, the Airport is in a strong position to gain market share from passengers currently using airports outside the region, such as the capacity-constrained London airports.

Our infrastructure today

The Airport is located on a 361 hectare site, which includes the single runway, aircraft stands and taxiways, the terminal building, transport access and car parking. There are a range of ancillary operational facilities to provide air traffic control, aircraft maintenance, cleaning, catering and cargo mainly located around the original Elmdon terminal building. General aviation services such as private aircraft charter also operate from this location. A plan of the Airport site can be found in Appendix B.

Our airspace

The UK's airspace is the network of airways and navigation aids that handle over two million flights every year. It has remained relatively unchanged in 50 years and this essential part of our national transport infrastructure is in urgent need of modernisation, to increase capacity and move from ground based radio beacons to modern satellite navigation. We are working with NATS to modernise and change our flight paths.

We have completed two separate and extensive consultation processes on departure routes to the south and north of the airfield. The new runway 15 flight paths to the south were approved by the CAA in April 2016, apart from one flight path that turns back towards the north (this is awaiting CAA approval following improvements to the design). We have reached a final recommendation for the flight paths for departures from runway 33 to the north that we believe best serve the Airport and its communities today. The CAA will rule on this proposal imminently. As part of this process, we have proposed the introduction of a new 24-hour departure routing known as MOSUN. The MOSUN flight path will have a positive impact, as aircraft heading in the direction of the Iberian Peninsula and Southern Ireland can use this routing. By using this routing these aircraft would depart west and reduce demand on easterly departures. To achieve this we need to undertake further work with National Air Traffic Services (NATS).

Existing and proposed flight paths

The image on the right shows all new and recommended flight paths, which are fully aligned with the latest technology that is critical to the national airspace modernisation programme. The blue lines represent the flight paths that are proposed to replace the existing northern departure routes whilst the black lines represent the existing flight paths to the south of the Airport.

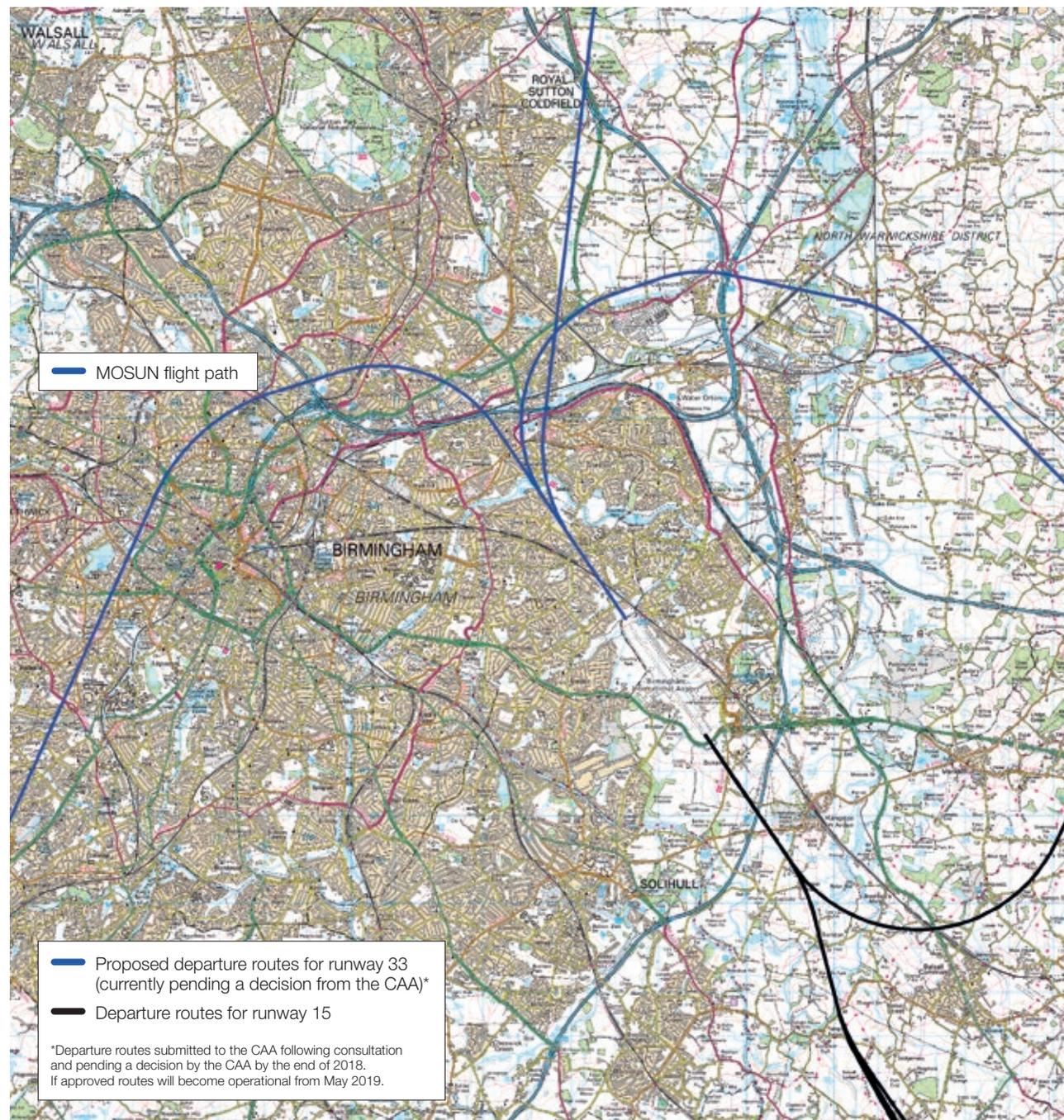
As we have described, Birmingham Airport is progressing changes to the airspace within its geographical remit to deliver the national airspace modernisation project. Once complete, we will have made valuable progress in providing the infrastructure that the UK's aviation industry needs.

The airspace in other parts of the country has ongoing and serious capacity constraints in terms of congested airspace. It is vitally important that modernisation to the south-east is urgently prioritised. Constraints in these areas have a direct impact today on our runway operations by restricting the number of aircraft we can release into the UK system. This runway constraint, known as Minimum Departure Intervals (MDIs), is explained more fully in the following section and is critically important if we are to make best use of existing runway capacity at Birmingham.

Airfield capacity

Runway infrastructure

There is one operational runway, which is 3,052 metres in length and 46 metres wide, with a single parallel taxiway and intermediate access points. The runway can support International Civil Aviation Organisation (ICAO) Code F designated aircraft such as the Airbus A380. However, the majority of aircraft movements are performed by Code C i.e. 737-800 or equivalent aircraft. The runway has six entry/exit points for traffic using the passenger terminals. There are planning conditions that control the use of certain taxiways in order to minimise the noise impact on surrounding communities.





Stratford upon Avon
Home of Shakespeare



As the home of Shakespeare and the upcoming 2022 Commonwealth Games, it's fantastic to see that the West Midlands welcomed a record number of overseas visitors in 2017. It's also incredibly helpful to have the UK's most family friendly airport here in Birmingham, serving people from all over the world.

Helen Peters
Chief Executive, Shakespeare's England

In 2016, the mode of operation for the main runway, in terms of Air Transport Movements, was:

- Runway 33 North West (Out Over Birmingham) Departures: 29%.
- Runway 33 South East (In Over Solihull) Arrivals: 28.7%.
- Runway 15 North West (In Over Birmingham) Arrivals: 21.3%.
- Runway 15 South East (Out Over Solihull) Departures: 21%.

The runway is fully compliant with international design and safety standards set by ICAO. The Airport is equipped with a Cat III Instrument Landing System allowing for pilots to land in restricted visibility situations without acquiring a visual reference.

The runway is capable of handling 40 movements per hour. However, its capacity is currently restricted by MDIs that are imposed by NATS, the UK's national en-route provider of air traffic services, during the early morning departures peak because there is insufficient airspace in the south-east for the number of aircraft that need to fly through this area from Birmingham and other airports. These MDIs increase the separation between successive departures routing southbound from Birmingham from seven nautical miles to fifteen nautical miles.

The Civil Aviation Authority, as the national supervisory authority for the planning and regulation of national airspace, has a responsibility to ensure that UK expansion is developed to meet demand and avoid the need for NATS to impose regular restrictions due to insufficient capacity. Changes are vital and must be introduced if Birmingham and other airports are to be able to make best use of existing runways in accordance with Government policy.

Aircraft stands

The Airport has 36 single stands and 11 Multiple Apron Ramp System (MARS) stands which can park either two narrow body or one wide body aircraft. This means that in the maximum narrow body MARS configuration there are 69 stands available and in the maximum wide body configuration there are 58 available. Of the 36 single stands, 12 are contact stands (from which passengers can walk to and from the aircraft) and 24 are remote stands. Of the 11 MARS stands seven are contact stands and four are remote.

As airlines are using larger aircraft and as the aircraft themselves have become wider with the addition of fuel-efficient 'winglets', eight of the stands are no longer wide enough for all aircraft. Reconfiguration is planned although it is not straightforward to widen a stand when it has other stands to either side. It is also necessary to reserve some stands, for example a specific wash bay with appropriate drainage or for any aircraft that have technical issues.

In practice therefore, the maximum number of narrow body stands available for flight operations is 58.

Type	Stands	Of which contact stands
Single	36	12
MARS	11	7
Maximum (narrow body configuration)	69	26
Maximum (wide body configuration)	58	19

Fuel farm and refuelling

The main fuel tank farm is located between the runway and the aircraft parking stands on the south side of the site and is supplied by tankers. There are three fuel tanks with an aggregate capacity of three million litres of Jet A-1 aviation fuel. Refuelling is provided by Shell and World Fuel Services under a long-term contract.

Terminal infrastructure

Our terminal

The Airport terminal can broadly be described as two distinct areas connected by a link building. Each of these areas has grown and developed over time and both contain many of the same attributes such as a check in hall, passenger lounges, baggage facilities and arrival and immigration halls. These two buildings are served by a centralised passenger security area housed in the link building connecting the two facilities. There are advantages to this arrangement including allowing airlines to have their own distinct spaces and identity as well as providing operational flexibility and resilience. However, the two buildings do add operational complexity and inefficiency, for example resourcing for multiple immigration halls.

Since 2007, we have invested £300 million in the Airport, of which a significant proportion has been spent in the terminal building to increase capacity and enhance the customer experience. This investment has sought to create efficiencies within the operation, maximise the use of space and invest in technology where possible. The link with the national rail network is a key asset to the Airport and we have sought to maximise this using our direct Air-Rail link connection.

A new departure lounge was opened in 2007, the year the previous Master Plan was published. This created additional space and comfort for passengers waiting for flights. The second major milestone was achieved shortly after in 2009 when the International Pier was opened, improving facilities for both passengers and aircraft handling. The next major change to the infrastructure was the creation of the centralised security area for passenger screening in 2011. This reduced wait times and removed the requirement to manage two separate facilities. After the opening of the centralised security facilities, the Airport continued its investment programme with the delivery of the runway extension and a new Control Tower. This project provided the infrastructure that now enables aircraft to fly further and carry a heavier payload, vital for the long-term development of the long-haul market that is so important to the Midlands economy.

Since 2014, developments have included the opening of a new bussing lounge to serve aircraft parked remotely, a new World Duty Free store, and the introduction of the Shakespeare's England arrivals corridor, which reinforces our strong links to one of the world's most recognisable names. It also provides an learning hub/educational facility for local school use in partnership with the Schools of King Edward VI of Birmingham.

More recently we have introduced self-service check-in to improve efficiency and reduce waiting times for passengers as well as a new entrance to the security area to help passengers prepare for the security process.

We have worked hard to ensure that the needs of a diverse community are met, with the development of facilities such as multi-faith washing facilities, prayer rooms and facilities for less able travellers such as "Changing Places" areas.

Our departure lounges today have a floor area of 15,500m², including 8,500m² of retail space, accommodating 3,200 passengers per hour in peak periods.

Development timeline 2007-2018



Overview of the current Airport facilities		
Departures	Check in	115 (including 5 self-service bag drop) 29 self-service kiosks
	Baggage system	6 hold baggage screening lines
	Security	14 lanes (including 2 express lanes)
	Gates	27 total gates, 9 bussing gates, 11 gate lounges Remaining gates are open seating
Arrivals North Terminal	Immigration	14 desks 15 eGates
	Baggage reclaim	5 belts (International) 1 out-of-gauge belt
Arrivals South Terminal	Immigration	5 desks (no eGates)
	Baggage reclaim	2 belts (International) 1 belt (domestic) 1 out-of-gauge belt

Source: Birmingham Airport

The centralised security area currently comprises 14 screening lanes and utilises the latest technology to minimise queue times whilst meeting increasingly stringent security requirements.

Elmdon facilities

On the western side of the runway is the Elmdon Area where the passenger terminal was located until 1984. It still retains the Elmdon Terminal Building, its apron and taxiways to the runway. This area is now used primarily for general and corporate aviation and many of the support services required by the Airport.

Operations include:

- In-flight Catering: Alpha LSG, Eurest, Plane Catering and DHL hold concessions at the Airport to provide catering services to airlines.
- Cargo: Swissport Cargo, FedEx, BDA Logistics and Worldwide Flight Services each have cargo facilities at the Airport. The main cargo operators are supported by local ground transport companies, some of which are also located on the Airport site.
- Fixed Based Operations (“FBO”): Signature Flight Support, and XLR Executive Jet Centres offer FBO.

Other services located at Elmdon include aircraft fuelling, hangarage, cleaning and maintenance, including Monarch Aircraft Engineering’s 10,000 square metre, state of the art maintenance hangar which accommodates two wide-body aircraft such as a Boeing 777 concurrently.



Other facilities

The Airport comprises a number of other facilities:

- **Air-Rail Link:** we operate an 'Air-Rail Link' system which connects the Airport to the adjacent Birmingham International Station. The Air-Rail Link takes two minutes to get to the station and operates between 03:30 and 00:30 hours daily. Birmingham International Station directly connects over 100 towns and cities including London in 70 minutes, to both the Airport and to the National Exhibition Centre.
- **Car Rental Services:** Currently provided by five major car hire companies. Car hire facilities include service desks in the arrivals hall and car collection points a five minute walk from the terminal.
- **Fire Station:** Located on the north-east side of the runway and accommodates the crew and equipment of the Airport Fire & Rescue service. The requirements for the provision of these services are laid down by the European Aviation Safety Agency (EASA) and monitored by the CAA. The level of protection provided is based on the size of aircraft operating at the Airport; our Fire & Rescue service is licensed to Category 10, providing protection on operations by aircraft up to A380.
- **Snow Base and De-icing facilities:** To support winter-based operations.
- **Ground Handling:** Two third party handlers work at the Airport for commercial airlines: Swissport and Premiere Handling provide services to the airlines on-site.

Hotels

There are three on-site hotels adjacent to the terminal: Novotel, Ibis (operating as both Ibis and Etap) and the newly constructed Hilton Garden Inn, which between them cater to a broad range of the overnight guest market.

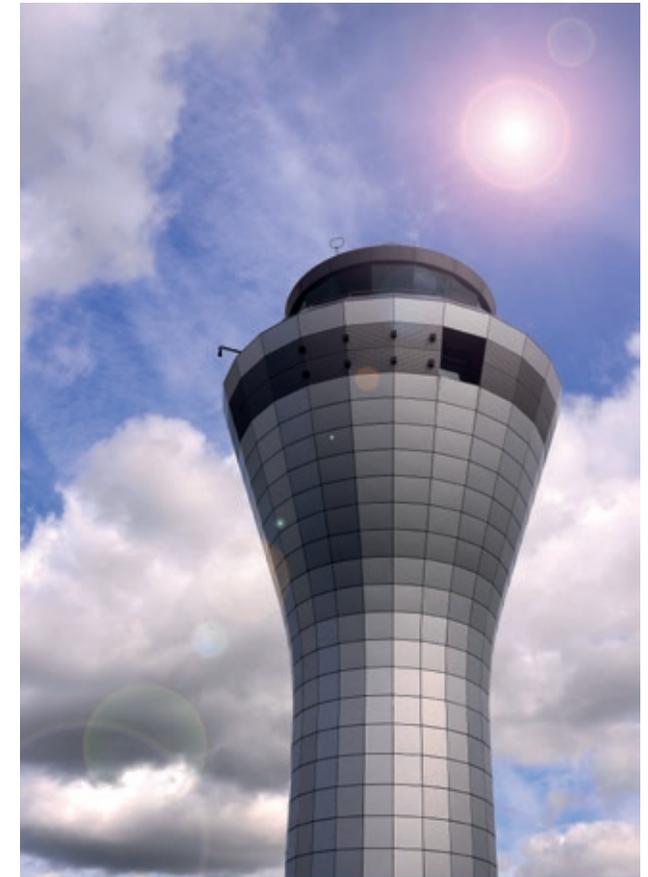
Our surface access

Whilst we are at the centre of the UK road and rail network, which provides us with potentially excellent access, the area surrounding the Airport often experiences road congestion that can significantly slow down the journey of passengers travelling by car, bus or coach to the Airport.

It is therefore vital that we continue to seek improvements to our surface access both through enhanced public transport links such as the proposed Metro extension, and through increased capacity in the local road network, in particular the interchanges with the M42.

Enhanced rail links, particularly to the East Midlands and to Leamington Spa and Warwickshire, would help alleviate road congestion by providing a rail alternative. In the longer-term HS2 will free-up capacity on the West Coast Main Line to enable greater frequency of services.

The need to seek improvements to our surface access is also recognised by Midlands Connect in their 2017 Strategy, which identifies airport connectivity as one of the early priorities for development and delivery. We welcome this and will work closely with Midlands Connect to help them deliver their strategy.



Investment in safety

Through state of the art technology

Our current surface access enables passengers and staff direct access to the Airport via, bus, coach, rail, cycle, foot, taxi and car. Key features are:

- 11 bus stands located along a dedicated lane on the passenger terminal frontage. Our bus services provide frequent links to destinations such as Solihull, Birmingham and Coventry, together with longer distance countrywide coach services such as those run by National Express
- A bus only route runs alongside the A45, linking the Elmdon site with the main passenger terminal. This route is served by local buses in addition to dedicated car park transfer shuttle buses and is not open to general traffic. Bus only lanes are also provided along both sides of Bickenhill Lane, north of the Airport.
- Taxis are accommodated in a holding area adjacent to Car Park 5, with a short length of kerbside waiting provided adjacent to the terminal for pick up activity.
- Footways are provided along both sides of Airport Way, which directly link the Airport with the main roads of Bickenhill Lane and the A45. Both of these routes feature wide footways and signed cycle routes, enabling ongoing linkages to residential areas in the vicinity of the Airport.
- We have 14,000 car parking spaces.

We have improved the passenger experience of those travelling to the Airport by car by enhancing the on-site drop-off facilities, long stay car parks and pedestrian routes between the terminal and car park areas. As part of this, a Premium Set Down facility (adjacent to the Airport terminal) and a free 30 minute drop off car park have recently been introduced.

Furthermore, a covered walkway has have been developed between the terminal and car park areas and car hire facility to improve the pedestrian experience of those parking at the Airport.

We also introduced a Car Park Levy in July 2014, which has helped to fund the implementation of sustainable travel including initiatives such as the provision of improved cycle facilities, the monitoring and implementation of our staff Travel Plan (which is updated on an annual basis) and a joint lift-share venture with the NEC, Resorts World and Birmingham Business Park.

