



Gatwick Airport Northern Runway Project

Environmental Statement

Chapter 4: Existing Site and Operation

Book 5

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4 Existing Site and Operation

4.1. Introduction

4.1.1 This chapter of the Environmental Statement (ES) provides an overview of the existing Gatwick Airport and the key changes that are planned in the absence of the Project. This provides details of the existing and future baseline situation (how the airport would grow in the absence of the Project), with regard to the airport and its operations. Details of the Project are provided in **ES Chapter 5: Project Description** (Doc Ref. 5.1).

4.1.2 **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3) presents air traffic and other forecasts that have been prepared for the purpose of the ES.

4.2. Gatwick Airport

4.2.1 London Gatwick Airport (referred to hereafter as Gatwick) became an aerodrome in the 1930s and was formally opened as a passenger airport in 1958. Since this time, passenger numbers have grown to over 46 million passengers per annum (mppa). In 2019 (the most recent full year of operation prior to the Covid pandemic), Gatwick served more destinations than any other UK airport¹ and was the busiest daytime, single runway airport in the world

4.2.2 The operation at Gatwick is served by a single main runway and two terminals: North Terminal and South Terminal. When the main runway is unavailable, the existing northern runway is used. The northern runway was used for 2,842 air traffic movements (ATMs) in 2019.

4.2.3 The extent of the Gatwick Airport boundary is presented in **ES Figure 1.3.1** (Doc Ref. 5.2). Key features mentioned in this chapter are shown on the following figures:

- Figure 4.2.1a Existing Airfield Infrastructure
- Figure 4.2.1b Existing Supporting Airport and Highways Infrastructure
- Figure 4.2.1c Existing Environmental Features

Existing Runway Provision

4.2.4 Gatwick's main runway (as shown in **ES Figure 4.2.1a** (Doc Ref. 5.2)) is designated 08R/26L. This means that when the wind is from the east, aircraft using the runway approach and depart on a heading of 80° (with the runway referred to as runway 08R). When the wind is from the west, aircraft arrive and depart on a heading of 260° (referred to as runway 26L). The 'L' and 'R' annotation is to be read as 'Left' or 'Right', as when pilots approach the active runway, it will appear in their field of view as the left or right of a marked pair of runways. Due to the prevailing wind conditions, the runway is used in the westerly (260°) direction for approximately 75% of the time in a typical year (although this

¹ Gatwick served 202 destinations in 2019 with annual passenger volumes more than 20k (CAA Statistics).

varies year on year). The main runway is an instrument runway², measuring approximately 3.3 km in length and a minimum of 45 metres in width, plus runway shoulders.

4.2.5 The existing northern runway (as shown in **ES Figure 4.2.1a** (Doc Ref. 5.2)) is only available for use when the main runway is closed. It is designated 08L/26R. As with the main runway, aircraft arrive and depart on a heading of 80° when the wind is from the east (referred to as runway 08L), and on a heading of 260° when the wind is from the west (referred to as runway 26R). The runway is currently a non-instrument runway³, measuring approximately 2.6 km in length and a minimum of 45 metres in width, plus runway shoulders. When not in use as a runway, the existing northern runway is used as a parallel taxiway for the main runway.

4.2.6 The existing airport is predominantly used by the following aircraft types, defined in accordance with the International Civil Aviation Organization (ICAO) Aerodrome Reference Code (ICAO, 2017) (second element):

- Code C: aircraft with a wingspan of between 24 metres and less than 36 metres, such as the Boeing 737-700 or Airbus A-320;
- Code D: aircraft with a wingspan of between 36 metres and less than 52 metres, such as the B767 series or Airbus A-310;
- Code E: aircraft with a wingspan of between 52 metres and less than 65 metres, such as the B777/B787 series or A330 family; and
- Code F: aircraft with a wingspan of between 65 metres and less than 80 metres, such as the Boeing 747-8 or Airbus A-380-800.

4.2.7 In addition, a number of smaller Code A and Code B aircraft use the airport for general aviation⁴.

Taxiways

4.2.8 The existing Taxiway Juliet (as shown in **ES Figure 4.2.1a** (Doc Ref. 5.2)) provides a parallel taxiway to the north of the northern runway. In addition, the airfield includes:

- a network of taxiways to the north of Taxiway Juliet, providing the ability for aircraft to move around the airfield and access the existing piers, stands, Taxiway Juliet and the runways;
- exit taxiways between the main runway and the existing northern runway; and
- taxiways between Taxiway Juliet and the existing northern runway.

² An instrument runway is one equipped with both visual and non-visual navigational aids which allow for the safe approach and landing of aircraft in all weather conditions, including those periods where low cloud or fog restrict visibility to the pilot. The main navigational aid assisting pilots in their final approach to the runway is known as the Instrument Landing System (ILS). An ILS is composed of two separate pieces of equipment – the localiser and the glidepath aeralis. The localiser provides left-right guidance so that the aircraft follows the runway centreline. The glidepath signal provides guidance so that the aircraft follows the correct angle of approach and rate of descent to the runway. There are two separate sets of ILS equipment at Gatwick, one of which will always be active at any one time when the main runway is in use.

³ A non-instrument runway is one where the pilot is reliant on visual cues (approach and runway lighting, approach path indicators, and paint markings) to make a safe approach and landing to the airport. If the visual cues are not visible to the pilot owing, for example, to fog on the runway or a very low cloud base, then the aircraft may have to hold until conditions improve, or divert to an alternate airport. A non-instrument runway is not equipped with ILS.

⁴ General aviation is civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire

Terminals, Piers and Stands

- 4.2.9 Gatwick has two passenger terminals: North Terminal, which opened in 1988, and South Terminal, which opened in 1958. The terminals are shown in dark blue on **ES Figure 4.2.1a** (Doc Ref. 5.1).
- 4.2.10 The existing North and South Terminals have maximum heights of 32 and 40 metres and gross floor areas of approximately 98,100 m² and 119,300 m² respectively. This includes facilities such as:
- check-in desks;
 - security;
 - departure lounges;
 - outbound baggage;
 - gates;
 - air bridges;
 - immigration; and
 - arriving baggage.
- 4.2.11 In addition, the terminals include offices, shops, restaurants, welfare facilities, baggage handling facilities, boilers and chillers.
- 4.2.12 The terminals are linked by an inter-terminal tracked transit system (ITTS) with journey times of approximately two minutes between the two. The ITTS track is shown in red on **ES Figure 4.2.1b** (Doc Ref. 5.2).
- 4.2.13 Gatwick currently supports six piers from which passengers embark and disembark aircraft (Piers 1, 2 and 3 at South Terminal and Piers 4, 5 and 6 at North Terminal – shown in mauve on **ES Figure 4.2.1a** (Doc Ref. 5.2)). The number of aircraft stands serviced by each pier is dependent on the type and size of aircraft. Many of the airport apron parking stands are configured so that a given stand can be configured to park with one large aircraft in the centre of the stand (usually Code E or F), or two smaller aircraft (Code C and below) side by side. The stands are shown in cream in **ES Figure 4.2.1a** (Doc Ref. 5.2). At the current time, the number of stands provided is as shown in Table 4.2.1 below.

Table 4.2.1: Aircraft Parking Stands

Aircraft Type	Number of Stand Centrelines (2022)
Code C stands (North Terminal)	39
Code C stands (South Terminal)	38
Code C stands (remote)	61
Code E stands (North Terminal)	16
Code E stands (South Terminal)	16
Code E stands (remote)	27
Code F stands (North Terminal)	1

Note: Number represents the number of stand centrelines, different configurations are available.

Existing Airfield and Supporting Facilities

- 4.2.14 The existing airport includes a number of facilities required to support the operation of the airfield, including:
- airport fire station (airport fire service);
 - central area recycling enclosure (CARE);
 - motor transport, surface transport and ground maintenance facilities;
 - cargo facilities;
 - fire training ground;
 - aircraft hangars;
 - air traffic control tower;
 - noise mitigation, including the existing bund and noise wall at the western end of Taxiway Juliet;
 - internal access routes (including Larkins Road);
 - substations; and
 - a fuel storage area (known as the fuel farm).
- 4.2.15 These features are shown on **ES Figure 4.2.1a** (Doc Ref. 5.2). In addition, the main runway operation is supported by an Instrument Landing System (ILS)⁵.
- 4.2.16 In addition to departing and arriving flights, aircraft engine testing (known as aircraft engine ground running) currently occurs within the airfield, including at the eastern and western ends of Taxiway Juliet, on Taxiway Yankee and on the northern runway.
- 4.2.17 The existing cargo facility occupies an area of approximately 10 hectares, including 23,000 m² of cargo sheds, with office accommodation and areas for heavy goods vehicle loading, unloading and parking.
- 4.2.18 British Airways operates one hangar south of the main runway. In addition, there are currently three hangars to the north of the runway, Hangar 7 (formerly operated by Virgin Atlantic) and those operated by Boeing and easyJet.
- 4.2.19 The CARE and motor transport facilities, along with a number of other supporting facilities (such as water pumping stations and electrical substations) are located to the north of Taxiway Juliet and between Taxiways Tango and Sierra.
- 4.2.20 The existing fire station is located to the north of Taxiway Juliet and south of the air traffic control tower, with a fire training ground located north of the western end of Taxiway Juliet. The Gatwick Airport Fire Service is based at the airport fire station and provides appropriate rescue and fire-fighting cover in accordance with regulatory requirements 24 hours a day, 365 days per year.

⁵ The main navigational aid assisting pilots in their final approach to the runway is known as the ILS. An ILS is composed of two separate pieces of equipment – the localiser and the glidepath aeralis. The localiser provides left-right guidance so that the aircraft follows the runway centreline. The glidepath signal provides guidance so that the aircraft follows the correct angle of approach and rate of descent to the runway. There are two separate sets of ILS equipment at Gatwick, one of which will always be active at any one time when the main runway is in use.

Hotel and Commercial Facilities

- 4.2.21 Existing hotels at the airport provide approximately 3,000 rooms (combined). The hotels are:
- Hampton by Hilton - North Terminal;
 - Premier Inn - North Terminal;
 - Premier Inn (A23 Airport Way) - North Terminal;
 - Sofitel London Gatwick - North Terminal;
 - BLOC - South Terminal;
 - Hilton London Gatwick - South Terminal;
 - Courtyard Marriott - South Terminal; and
 - YOTELAIR - South Terminal.
- 4.2.22 The existing hotel locations are shown in yellow on **ES Figure 4.2.1b** (Doc Ref. 5.2).
- 4.2.23 Existing main office facilities within the airport provide approximately 34,590 m² of floorspace (net internal area).

Car Parking

- 4.2.24 A range of on-airport car parking is provided, including short stay, long stay and staff parking (see **ES Figure 4.2.1b** (Doc Ref. 5.2)). Approximately 46,700 parking spaces⁶ are available within the airport boundary as shown in Table 4.2.2.

Table 4.2.2: Existing Car Parks

Type	Number of Spaces (2019)
Short Stay	
Multi-storey car parks 1, 2, 3	2,472
Multi-storey car parks 5, 6	2,099
Long Stay	
Self-park south	8,282
Self-park north	6,266
Valet 'Courtland'	3,285
Valet north 'Flying Pan'	966
Valet MA-1	5,372
Valet 'Purple Parking'	821
Summer Special	5,277
Holiday	1,546
South valet	3,363
Commuter and coach	292
Car park Z	570

⁶ Parking spaces as at 2019.

Type	Number of Spaces (2019)
Total Short Stay and Long Stay	40,611
Staff Car Parks	
Car park B	414
Car park Y	916
Car park M	463
Car park X and V	2,644
Car park L	362
Car park W	121
Car park H	1,170
Total Staff Parking	6,090
Total Spaces	46,701

Surface Access

Highways Connections

- 4.2.25 Gatwick is directly connected to the M23 via the M23 spur road, approximately 25 miles south of central London.
- 4.2.26 The South Terminal junction (M23 Junction 9A) currently consists of a three-arm at grade roundabout, with the M23 spur approaching from the east and Airport Way from the west. The southern arm of the roundabout provides access to the South Terminal, car parking and hotels and offices.
- 4.2.27 The North Terminal roundabout is the entry point to the North Terminal and local access roads, including the north and east perimeter roads. The existing layout consists of a circular five-arm at grade roundabout to the north east of the North Terminal and to the south west of the A23.

Gatwick Station

- 4.2.28 Gatwick's railway station is located at the South Terminal (as shown in **ES Figure 4.2.1b** (Doc Ref. 5.2)). There is a direct transit link from the railway station to the North Terminal via the ITTS. The station provides over 120 direct rail connections (no change required), including direct trains to central London. These include the Gatwick Express service to London Victoria as well as the Southern and Thameslink networks.

Shuttle Service

- 4.2.29 The two terminals are connected by the ITTS, an automated people mover (monorail shuttle service) (as shown in **ES Figure 4.2.1b** (Doc Ref. 5.2)). This currently operates two three-car trains every few minutes between the terminals.

Bus Services

- 4.2.30 Both terminals provide access to local and regional bus and coach services.

Surface and Foul Water Drainage

- 4.2.31 Within the airport, surface water is managed through existing Ponds A, D to H, Pond M and Dog Kennel Pond (see **ES Figure 4.2.1c** (Doc Ref. 5.2)) (further detail is provided in **ES Figure 11.6.1** (Doc Ref. 5.2) accompanying **ES Chapter 11: Water Environment** (Doc Ref. 5.1)). Rainfall runoff from the airport generally drains via attenuation ponds and pollution control structures to one of the three watercourses: Crawter's Brook, Gatwick Stream and the River Mole (see **ES Figure 4.2.1c** (Doc Ref. 5.2)), in accordance with existing discharge consents.
- 4.2.32 Foul water currently passes to the Crawley Sewage Treatment Works to the south east of the airport or Horley Sewage Treatment Works to the north east of the airport (see **ES Figure 4.2.1c** (Doc Ref. 5.2)).

Existing Operation and Maintenance

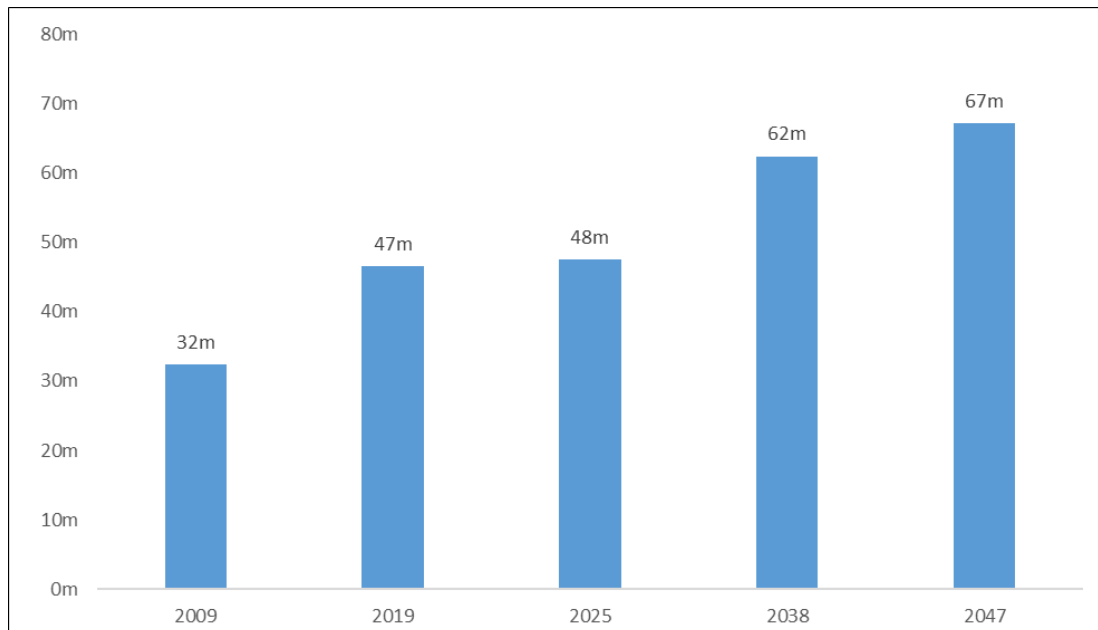
- 4.2.33 In 2019 approximately 24,000 staff worked at the airport of which approximately 3,300 were employed directly by Gatwick Airport Limited (GAL). In 2020 as a result of pandemic conditions, the number of GAL staff fell to approximately 1,829, with an estimated 19,400 jobs directly at Gatwick Airport across a range of companies. It is also estimated that the airport supported a further 27,300 indirect jobs in the supply chain of on-site businesses. Employment numbers are expected to return to previous levels in line with recovering passenger numbers in the coming years, with an estimated 24,000 jobs directly at Gatwick Airport in 2024 and a further 43,000 indirect jobs in the supply chain of on-site businesses. Further information is provided in Section 11, **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3).
- 4.2.34 Aviation fuel is stored in a designated area (known as the fuel farm) in the northern part of the airport, to the north of the cargo area (see **ES Figure 4.2.1a** (Doc Ref. 5.2)).
- 4.2.35 As part of routine maintenance of the airport, the existing runways are resurfaced every 10 to 15 years. The main runway was resurfaced in 2022.
- 4.2.36 Two existing areas are managed for biodiversity (shown in yellow on **ES Figure 4.2.1c** (Doc Ref. 5.2)) and are within and adjacent to the Project site boundary. These are known as:
- the north west zone, located to the north of Taxiway Juliet, which includes ancient woodland at Brockley Wood and part of the River Mole corridor; and
 - land east of the railway line, located in the south eastern part of the site, which includes part of the Gatwick Stream, ancient woodland (Horleyland Wood), grassland and ponds.

4.3. Predicted Future Changes in Passenger and Cargo Throughput at Gatwick

- 4.3.1 During 2019, Gatwick accommodated the following:
- total passengers: 46.6 million;
 - commercial ATMs: 283,000

- non-commercial ATMs⁷: 2,000; and
 - total cargo: 150,000 tonnes.
- 4.3.2 The COVID-19 pandemic had a very severe impact on the global aviation industry in 2020. Gatwick, along with all other UK airports, experienced a significant reduction in passenger air traffic levels as a result of both Government-imposed restrictions on air travel and reduced passenger demand driven by low consumer confidence. UK passenger volumes for the calendar year 2020 were 75% down on volumes for 2019 (75 mppa vs 300 mppa), with passenger numbers at Gatwick falling from 46.6 mppa in 2019 to 10.2 mppa in 2020.
- 4.3.3 Following the removal of the UK's travel restrictions in April 2022, airline capacity and passenger demand returned to Gatwick and other UK airports. During summer 2022 passenger demand at Gatwick had recovered to over 80% of 2019 levels which was in line with the wider UK market. Capacity and demand would have been higher had it not been for ongoing travel restrictions in other markets / countries, as well as resourcing challenges faced across the UK aviation industry meaning airports/airlines were unable to fulfil the underlying demand.
- 4.3.4 There is confidence that passenger and airline demand at Gatwick will return to previous levels over the course of the next few years and then continue to grow thereafter. Through 2022 airlines continued to re-establish their schedules and Gatwick returned to 85% of its passenger throughput in the peak summer months. This is notwithstanding the fact that some headwinds remain reflecting the weakening macro-economic environment alongside the ongoing conflict in Ukraine, as well as some markets in Asia continuing to be impacted by ongoing travel restrictions.
- 4.3.5 Forecasts for passengers and ATMs have been prepared jointly by GAL's in-house airline relations and marketing and research teams and ICF, one of the UK's foremost experts in air traffic forecasting (see **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3)). Overall, the updated forecasts provided in **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3) predict that commercial traffic at Gatwick will return to 2019 pre-COVID levels by 2025, and that by the end of the 2020s passenger levels at Gatwick will have returned broadly to where they were forecast to be had the pandemic not occurred. This reflects the combination of ongoing capacity constraints already experienced before and during 2019 and underlying market growth across the London system. For example, Gatwick has been operating very close to its full potential in the peak summer months for several years. Gatwick's slot capacity has been oversubscribed for many years with significant levels of unmet demand from a range of airlines and business models.
- 4.3.6 As set out in **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3), it is predicted that by 2047, passenger throughput would increase to approximately 67.2 million passengers per annum (mppa) in the absence of the Project (see Diagram 4.3.1).

⁷ Non-commercial transport ATMs would typically include positioners (moving aircraft into position for scheduled or charter transport flights or returning to base after such flights), air taxi (<15 tonnes operating a non-scheduled service), training flights, official Government movements, military aircraft or business aviation movement. At Gatwick they only really comprise of positioning flights for the based airline operators as well as a modest amount of General Aviation (e.g. Business aviation) activity.

Diagram 4.3.1 Gatwick Passengers Base Case


Source: CAA/GAL Statistics

4.3.7 Growth in predicted future passenger numbers is anticipated to come from increased capacity derived from three main and well-established factors, as follows.

- Growth in runway utilisation in off-peak periods
- Up-gauging of fleet over time to larger aircraft.
- Higher average load factors.

4.3.8 These are explained in sections 4.3.11 to 4.3.20.

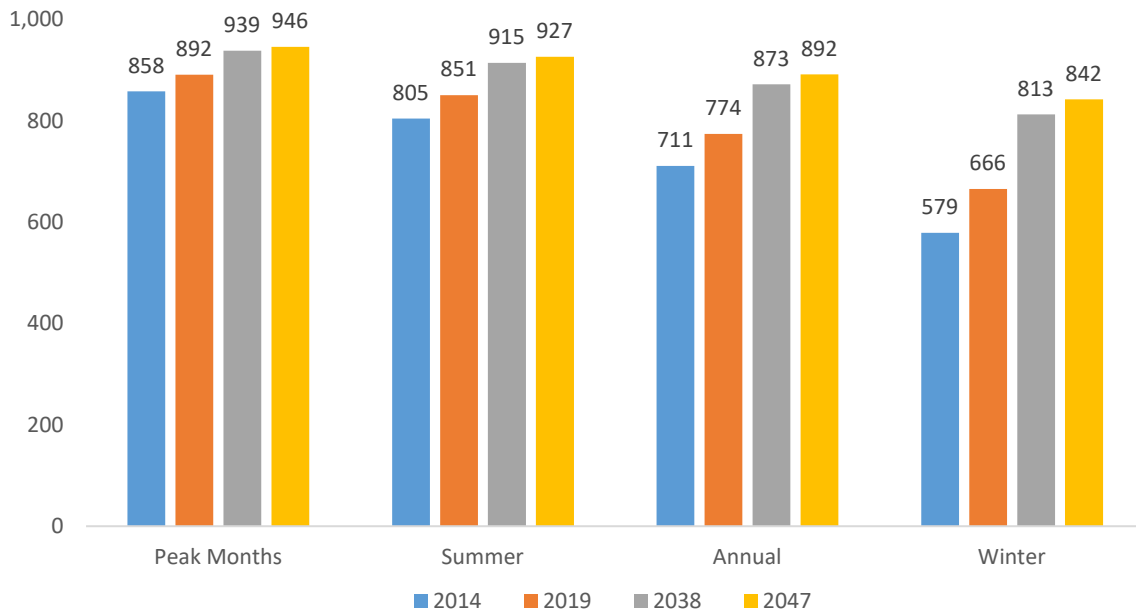
4.3.9 In order to support this growth, a number of developments are required at the airport and already consented/committed in the absence of the Project. Details of these future baseline developments are provided in Section 4.4.

4.3.10 Further details of baseline forecasts can be found within **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3).

Growth in Runway Utilisation in Off Peak Periods

4.3.11 In the busy summer months (July, August and September), Gatwick is often already operating at, or close to, its peak capacity. In the Baseline Case GAL is anticipating only modest growth during this period as daily commercial ATMs are forecast to increase by 4% from an average of around 900 in 2019 to 946 in 2047.

4.3.12 For the total summer season (April-October), daily commercial ATMs are forecast to increase 7% from an average of 851 in 2019 to 927 in 2047. In contrast, the less utilised winter period is forecast to increase from an average of 666 in 2019 to 842 by 2047. By 2038, this represents an increase of 22% versus 2019. For context, Gatwick's winter utilisation has increased by 15% in just the 5 years to 2019 as daily commercial ATMs have grown from 579 to 666 (see Diagram 4.3.2).

Diagram 4.3.2: Gatwick Daily Movement Growth


Source: CAA Passenger ATM Statistics

4.3.13 The increase in runway utilisation during off peak periods will result in annual air traffic profiles flattening as demand spreads to the less utilised periods of the year, although some seasonality would remain. In 2047, busy month commercial ATMs are forecast to be 6% higher than the annual average compared to 17% in 2019 and 23% in 2014.

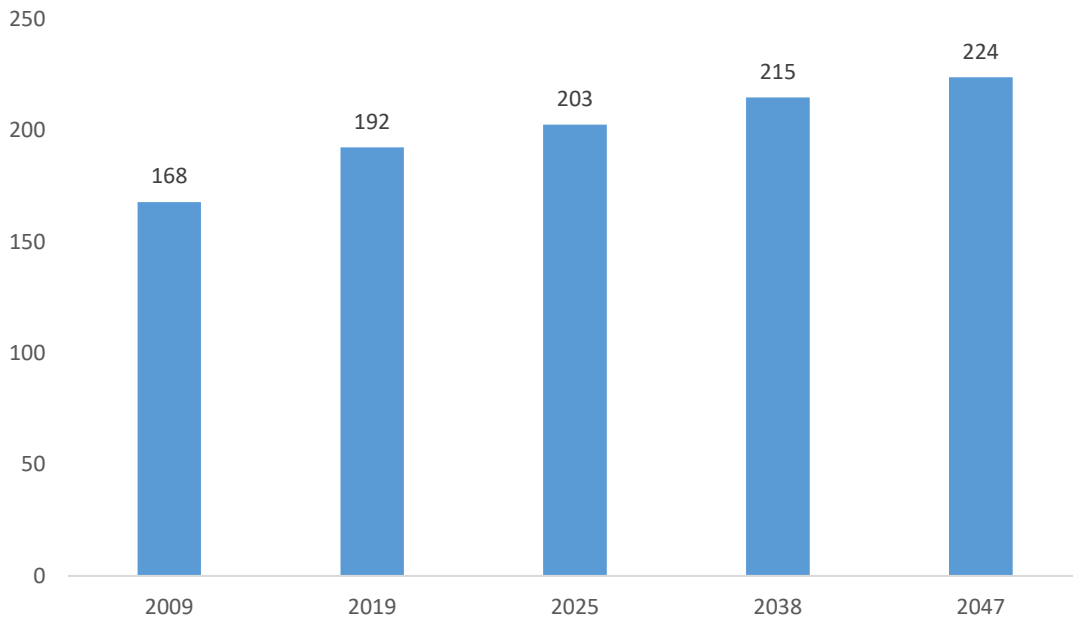
Up-gauging of Fleet Over Time to Larger Aircraft

4.3.14 The second important and year-round factor that will drive passenger growth is the trend for airlines to up-gauge their fleets with larger aircraft. Seats per ATM are expected to increase from an average of 192 in 2019 to 224 in 2047, as shown in Diagram 4.3.3 below.

4.3.15 Two good examples of this can be seen in Gatwick's two largest airlines - easyJet and British Airways - which currently account for over 60% of Gatwick's passengers. For example, easyJet is moving towards Airbus A320 and A321 aircraft (with 186 seats and 235 seats respectively) from the current A319 (156 seats) and A320 fleet (previously 180 seats). Similarly, British Airways is continuing to 'densify' its Boeing 777 fleet alongside longer term fleet replacement plans for their short haul fleet (eg the Boeing 777 densification resulted in seat configurations growing from 220/275 to 232/336) which will result in significant increases in average seats per aircraft⁸.

4.3.16 New long haul markets and the usage of Boeing 787s (often replacing 757/767) and Airbus A350s entering airline fleets are other examples of airlines up-gauging at Gatwick over the long term.

⁸ BA's 777 economy class seating being reconfigured from traditional 3-3-3 configuration to 3-4-3 - increasing seating from current 220/275 seats per aircraft towards 232/336 seats. IAG announced plans to replace Gatwick fleet with larger sized short haul aircraft such as the 737Max from the early/mid 2020s.

Diagram 4.3.3: Average Seats per ATM


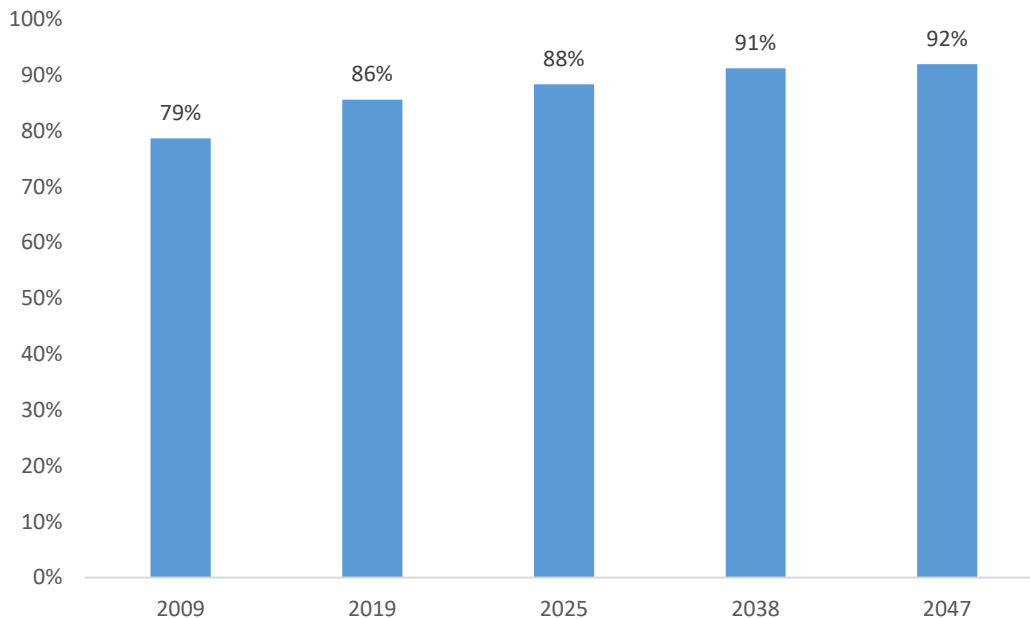
Source: CAA/GAL Statistics

4.3.17 The above changes are already underway for easyJet and British Airways and other large carriers such as Tui, and it is realistic to assume this will continue, especially as new slot capacity at UK airports continues to become scarcer and the UK aviation market demand continues to grow.

Higher Average Load Factors

4.3.18 Allied to the increase in average aircraft size is a predicted increase in average seat occupancy rates across the year, also referred to as load factors. In 2019, average load factors ranged between 78-92% (averaging 86%) across the year and have increased from 79% to 86% over the previous 10 years. This increase has been supported by the growth of low cost carriers, who have been actively increasing load factors across their networks.

4.3.19 Over the next 20 years load factors are forecast to increase at a slower rate, with the gains seen in the last 10 years not being repeated. Factors such as seasonality, directional imbalances and 'no shows' will continue to present challenges for airlines to increase their seat occupancy rates further. By 2047 and beyond, average load factors are forecast to increase more modestly to 92%, which is comparable to Gatwick's most efficient carriers operating today (see Diagram 4.3.4).

Diagram 4.3.4: Average Load Factor


Source: CAA/GAL Statistics

4.3.20 When combined, the aircraft size and load factor assumptions result in the average number of passengers per flight increasing from 165 in 2019 to 206 in 2047.

Cargo

4.3.21 In addition to the changes in passenger numbers, cargo throughput is also predicted to increase. It is predicted that cargo throughput would increase from approximately 150,000 tonnes in 2019 to approximately 290,000 tonnes in 2047 in the absence of the Project. Further information is provided in section 11 of the **ES Appendix 4.3.1: Forecast Data Book** (Doc Ref. 5.3).

4.4. Future Baseline

Future Baseline Airfield Projects

4.4.1 The developments outlined in this section are currently consented or under construction and would proceed in the absence of the Project. The airport, when the consented airfield and terminal projects are complete, would be capable of accommodating approximately 67.2 mppa and approximately 326,000 ATMs per annum by 2047 (without the Project).

Pier 6 extension

4.4.2 As part of the programme of consented airport improvements, a western extension to Pier 6 is being developed pursuant to GAL's permitted development rights. The work has progressed in three phases. Phases 1 and 2 (taxiway diversion and relocation of the existing A380 stand from Pier 6 to Pier 5) were completed in 2019 pursuant to a consultation under the General Permitted Development Order (GPDO) (Crawley Borough Council references CR/2018/0373/CON and CR/2018/0481/CON). Works on the main Pier extension commenced in 2019, pursuant to a GPDO consultations (Crawley Borough

Council reference (CR/2019/0427/CON) but was paused in 2020 due to the COVID-19 pandemic. Works are expected to resume in 2024 and be completed in 2026. The Pier 6 extension will increase the number of pier-served stands from nine stands to 17 (for this pier). As part of these works, limited changes to existing stands and alterations to Taxiway Quebec are required where these are located in the area of the proposed pier extension.

4.4.3 With the Pier 6 extension in place, the number of stands will be as set out in Table 4.4.1.

Table 4.4.1: Aircraft Parking Stands

Aircraft Type	Number of Stand Centrelines (Future Baseline)
Code C stands (North Terminal)	47
Code C stands (South Terminal)	38
Code C stands (remote)	61
Code E stands (North Terminal)	16
Code E stands (South Terminal)	16
Code E stands (remote)	27
Code F stands (North Terminal)	1

Note: Number represents the number of stand centrelines, different configurations are available.

Additional rapid exit taxiway

4.4.4 GAL is taking forward works to add an additional rapid exit taxiway from the main runway. This was subject to a GPDO Consultation in 2019 (Crawley Borough Council reference CR/2019/0448/CON). Work commenced in 2019, but ceased in 2020 due to COVID-19 pandemic. Work is expected to re-commence in 2023 and be complete by 2024.

Planned maintenance

4.4.5 The normal or planned maintenance and asset replacement programme for the main runway will include:

- resurfacing of both the main and northern runways and taxiways in accordance with the usual maintenance schedule; and
- replacement of the ILS equipment.

Future Baseline: Car Parking

4.4.6 A number of new car parks are also planned for implementation in the absence of the Project. These include the following:

- South Terminal Hilton Hotel multi storey car park: 820 spaces. This project is being brought forward by the hotel operator. Outline Planning Permission was granted for the car park MSCP in 2018 (Crawley Borough Council reference CR/2018/0337/OUT) and permission was renewed in 2021 (CR/2020/0575/NCC). The hotel's planning agent has advised that works are expected to recommence in 2023 or 2024 with completion in 2024 or 2025.
- Multi-storey car park 7 (North Terminal): 3,250 additional spaces. A GPDO consultation was submitted to Crawley Borough Council in October 2022

(CR/2022/0707/CON). Works have commenced and are expected to be complete in 2024.

- Use of robotics technology within existing South Terminal long stay parking area to increase parking capacity: 2,500 additional spaces. A GPDO Consultation was submitted for a trial of Robotic Parking in 2019 (Crawley Borough Council reference CR/2018/0935/CON). The trial was delayed due to COVID-19 pandemic. It is proposed to extend robotic parking over a larger area of existing car park to provide the additional 2,500 spaces in three phases - 500 spaces in 2024 and 1000 spaces in each of 2025 and 2026. These further phases will also come forward as permitted development subject to GDPO consultations with Crawley Borough Council.

4.4.7 These projects are anticipated to be complete by 2027 and would add 6,570 spaces to the existing provision to therefore provide 53,271 spaces without the Project.

Electric vehicle charging forecourt

4.4.8 An electric vehicle charging forecourt is currently under construction on a site to the west of the Marriott Hotel at the South Terminal. This is proceeding pursuant to a GPDO consultation completed in 2021 (Crawley Borough Council reference CR/2021/0066/CON) and is expected to be completed later in 2023.

Future Baseline: Highway Improvements

4.4.9 Highway improvements proposed in the absence of the Project include local widening on the junction entry/exit lanes for both the North Terminal and South Terminal roundabouts, together with signalisation of the roundabouts and provision of enhanced signage. These works are expected to be undertaken in collaboration with National Highways and are currently expected to be completed by 2029.

Future Baseline: Railway Station

4.4.10 Improvements to Gatwick Railway Station were the subject of a separate consenting process, with planning permission granted in March 2019 for a series of improvements to almost double the size of the station concourse, provide additional lifts and escalators and improve access to the platforms (Planning permission reference CR/2018/0273/FUL). The enhancement to the railway station will improve passenger experience and provide capacity for further growth in the numbers of rail passengers and overall public transport mode share. These improvements commenced in 2019 and are due for completion in 2023.

4.5. Airspace Management

Airspace Change Process

Future Airspace Strategy Implementation - South (FASI-S)

4.5.1 Airspace within the UK is regulated by the Civil Aviation Authority (CAA) and managed by NATS En Route plc (NERL), which is a subdivision within National Air Traffic Services (NATS).

- 4.5.2 As part of the UK Airspace Modernisation Strategy (co-sponsored by the Department for Transport and the CAA) and enforced through the Air Traffic Management and Unmanned Aircraft Act 2021, a programme is being undertaken to review the airspace over London and South East England, with the aim of addressing existing constraints and allowing for future growth in air transport. This work is being undertaken by NERL and a number of airports, including Gatwick, acting as airspace change sponsors and is known as Future Airspace Strategy Implementation - South (FASI-S).
- 4.5.3 FASI-S will be developed through an airspace change consultation in line with the CAA's airspace change process guidance document (CAP1616 (CAA, 2021)). This process for the airspace change around Gatwick Airport below 7,000 feet re-started in May 2021 and will take several years before the final design is clear.

4.6. Summary

- 4.6.1 Table 4.6.1 provides a summary of the key aspects of the existing site and the future baseline (without the Project). Further detail is provided in **ES Appendix 4.3.1 Forecast Data Book** (Doc Ref. 5.3).

Table 4.6.1: Summary: Existing Site and Future Baseline

Element	Key Aspect
Existing airport passenger throughput (2019)	46.6 mppa
Predicted future baseline airport passenger throughput (2047)	67.2 mppa
Approximate existing commercial air traffic movements (2019)	283,000
Approximate existing non-commercial air traffic movements (2019)	2,000
Approximate existing total aircraft movements (2019)	285,000
Approximate future commercial air traffic movements (2047)	326,000
Approximate future non-commercial air traffic movements (2047)	2,000
Approximate future total aircraft movements (2047)	328,000
Utilisation of existing northern runway (number air traffic movements - 2019)	2,842
Existing cargo (2019)	150,000 tonnes
Predicted future cargo (2047)	290,000 tonnes
Existing number of piers	6
Number of piers (with Pier 6 extension)	6 (with extension to existing Pier 6)
Approx. existing 'on airport' short term and long term car parking	40,611 spaces
Approx. existing 'on airport' staff car parking	6,090 spaces
Approx. total existing 'on airport' parking	46,701 spaces
Predicted approx. future airport car parking (with future baseline car parking improvements)	53,271 spaces

Element	Key Aspect
Existing terminal floorspace: North Terminal	98,100 m ²
Existing terminal floorspace: South Terminal	119,300 m ²
Maximum height of existing terminal building: North Terminal	32 metres
Maximum height of existing terminal building: South Terminal	40 metres
Existing hotel rooms	3,000
Future baseline hotel bed spaces ⁹	3,000 (no change)
Existing office floor space (in main office buildings)	34,590 m ²
Future baseline office floor space	34,590 m ² (no change)

4.7. References

Civil Aviation Authority (2020) Gatwick Airport Northern Runway Project Airspace Change Assigned Level Decision: CAP 1908.

Civil Aviation Authority (2021) Airspace Change: CAP 1616.

ICAO (2017) Aerodrome Reference Code

4.8. Glossary

Table 4.8.1: Glossary of Terms

Term	Description
ATM	Air Traffic Movements
CAA	Civil Aviation Authority
CARE	Central Area Recycling Enclosure
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
FASI-S	Future Airspace Strategy Implementation - South
GAL	Gatwick Airport Limited
GDPO	General Permitted Development Order
ICAO	International Civil Aviation Organization
ILS	Instrument Landing System
ITTS	Inter-Terminal Transit System
mppa	million passengers per annum

⁹ In the PEIR it was anticipated that two hotel developments with extant planning permissions would be part of the future baseline - an extension to the BLOC hotel providing 200 bedrooms and reconfiguration of the existing Hilton Hotel to provide additional 50 bedrooms. The planning permission for the extension to the BLOC hotel lapsed in February 2023. Reference in the PEIR to a 50 bed extension to the Hilton Hotel was an error. GAL is aware that the operator of the Hilton by Hampton hotel is planning an extension but the planning process on this has not progressed sufficiently for this to be included in the future baseline.

Term	Description
NATS	National Air Traffic Services
NERL	NATS En Route plc
PEIR	Preliminary Environmental Information Report