LONDON
BIGGIN HILL
AIRPORT

LONDON'S AIRSPACE IS **CHANGING!**

Over the coming years, a national program of airspace modernisation will result in the redesign the airspace above London and the South East of England. As part of this redesign, London Biggin Hill Airport has been asked to develop design principles, which will inform the design of any new routes aircraft using London Biggin Hill Airport will follow in order to integrate with the new London airspace architecture. We are keen to hear from you since your opinions could shape how the airspace is designed.
For more information, including details on how to respond, please visit **https://yourairport.co.uk/londonairspace**

LONDON
BIGGIN HILL
AIRPORT

CONTENTS

INTRODUCTION

In June 2018 the Aviation minister wrote to London Biggin Hill Airport asking us to join a national program to modernise and update UK airspace, including the airspace above London and the South East.

Department for Transport

Baroness Sugg
Transport Minister for Aviation, International and Security

Great Minster House
33 Horseferry Road
London
SW1P 4DR

Tel: 0300 330 3000
E-Mail: baroness.sugg@dft.gsi.gov.uk

Web site: www.gov.uk/dft

Managing Director
London Biggin Hill Airport
Main Road
Biggin Hill
Bromley
TN16 3BH

23 June 2018

Demand for air services has grown strongly in recent decades, and the government expects that demand will continue to rise significantly between now and 2050. This growth is good news for the thriving aviation sector and for the UK economy, but brings with it challenges which need to be addressed.

As demand for aviation increases, we must ensure the sector is able to grow in the most sustainable way. This means addressing the noise and air quality issues experienced by local communities, as well as the global effect of carbon emissions. As part of developing a new aviation strategy we need to provide the right framework for the sector to grow responsibly.

Modernising our airspace is vital - it is already struggling to keep pace with the growing demand for aviation. More traffic is being squeezed into the same congested areas of airspace causing increased passenger delays, reduced resilience to disruption and inefficient flight paths that are not optimised to reduce noise.

We are considering how we can support industry in bringing forward the vital changes our airspace needs, to ensure the benefits to the sector, communities and the environment can be realised.

The strategic case and benefits of modernisation in terms of quicker, cleaner and quieter journeys are well established. However, we face a key delivery challenge – particularly in the South of the UK – to coordinate multiple low-level airspace changes across different airports along with changes required by NATS at higher altitudes. As part of the initial phase of this coordination work NATS have produced a feasibility assessment of the potential future demands for airspace of airports in the South of the UK.

NATS submitted this report in May and the Transport Secretary has asked them to complete some further work in a small number of key areas. Alongside this, he has asked the CAA to undertake a short period of assurance on the work. Following this additional work, we expect that the headline findings of the work will be published later this year.

One of the initial findings of NATS report is that the airspace changes across airports in the South of the UK are likely to be highly interdependent. Therefore a high degree of coordination and collaboration will be needed between airports. Your airport is part of the group of airports' in the South of the UK that we expect will bring forward airspace change as part of this wider coordinated programme.

I would therefore ask for your commitment to the development and delivery of the Airspace Modernisation programme in the South East of the UK. It is important you begin work on your individual airspace change plans and design principles in line with the CAA's CAP1616 process, in consultation with stakeholders. It will also be important to ensure that your airport has adequate resources to deliver this airspace change.

I also ask that you provide NATS with the data they have requested for the next iteration of letterbox and gateway definitions by January 2019.

Alongside this work, the CAA are preparing a new Airspace Modernisation Strategy (AMS). The AMS will supersede the existing Future Airspace Strategy, and will take account of relevant Government policies and existing legal obligations. The CAA will begin public engagement on the draft AMS with key stakeholders – including environmental and industry stakeholders - in the summer, before submitting this to the DfT in December 2018.

In parallel, the department is working with the Infrastructure and Projects Authority, NATS, and the CAA to propose a new governance framework to oversee airspace modernisation on a national basis. I expect this governance to be implemented as soon as is possible.

Given the scale of the challenge and the importance of working closely together I look forward to further discussions on these issues.

BARONESS SUGG

LONDON
BIGGIN HILL
AIRPORT

As part of this modernisation process, we are required to redesign the portion of our arrival and departure routes that lies below 7,000 ft above mean sea level (AMSL). To achieve this, London Biggin Hill Airport will follow the UK Civil Aviation Authority (CAA) Airspace Design Process as set out in the CAA publication CAP1616.

This will involve a transparent process with stakeholder engagement at various points in the process and in due course, a full public consultation once all the potential new route options have been considered.

LONDON
BIGGIN HILL
AIRPORT

BACKGROUND

Why do we need to modernise UK airspace?

The airspace over London and the South East was designed in the 1950s for aircraft which were much less capable than those operating today.

The Secretary of State for Transport recently stated that, as a consequence, there is a pressing need to modernise UK airspace. This statement built on the Department for Transport's UK Airspace Policy that was published in 2017, which set out why and how we need to modernise our skies. Our current airspace structure is, in places, reaching capacity and does not allow modern aircraft to take full advantage of their improved performance and precision navigation capabilities. Changes to our airspace design may potentially provide more airspace capacity for future generations, fewer CO2 emissions per track mile and reduced aircraft noise levels on the ground in some areas.

So, ensuring that modern aircraft can perform to the best of their ability, together with the reality that there are now many more aircraft sharing our skies, means we must make changes now.

The Government and Civil Aviation Authority are providing leadership to support this change. Airspace modernisation will be delivered through a co-ordinated programme involving individual airports and National Air Traffic Services (NATS), the UK's en-route air traffic service provider.

The public also has an important role in this process. As we modernise our airspace, we will involve local communities close to airports as well as aircraft operators and other stakeholders so that everyone can make their views known about what our future skies should look like.

TIMESCALE

How long will this take?

If the UK is able to make these changes by 2025, it will bring us in line with global airspace changes, mandated by the International Civil Aviation Organisation (ICAO), a part of the United Nations. The UK aviation sector regulator, the Civil Aviation Authority (CAA), requires all UK airports to consult with their local communities about their proposed changes.

How will London Biggin Hill progress modernisation of its airspace?

The process of airspace modernisation is perhaps one of the most complex infrastructure changes in the history of the UK. Although there will be few physical changes to see, the design of our national airspace is critical to the safety and overall efficiency of air traffic entering, departing or transiting UK airspace.

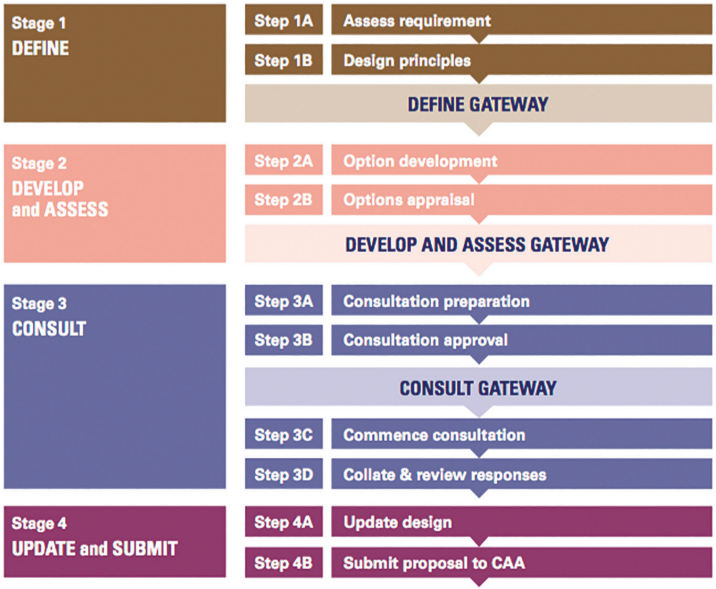
London Biggin Hill Airport is responsible only for the design of its own arrival and departure routes up to an altitude of 7,000ft above mean sea level where those routes must join and integrate with a new overarching route structure to be designed entirely by NATS.

London Biggin Hill Airport will need to coordinate its routes with neighbouring airports and NATS whilst at the same time taking into account views of all other stakeholders. Stakeholders may be local residents, local authorities, environmental groups, along with other interested parties and airspace users such as Business Jet, light aircraft or helicopter operators.

To achieve this, London Biggin Hill Airport is required by regulation to follow a seven-step process as set out in **CAA Publication CAP 1616**. The CAA hosts a dedicated **CAA Airspace Portal** through which the public can access all current airspace change consultations and offer its views.

LONDON
BIGGIN HILL
AIRPORT

THE CAA AIRSPACE PROCESS



CAP1616 Airspace Design sets out a seven step process which London Biggin Hill Airport must follow before any changes can be approved.

This Stakeholder Engagement focuses on step 1B of the CAP1616 process and aims to ensure that we set our priorities correctly for design of any new routes. At this stage we have not defined our priorities or 'Design Principles' as they are in the process of being developed.

Design Principle Development

We need your help and input to ensure that we set out our Design Principles in the correct order of priority and that we consider all relevant points in the design of any proposed new routes. For instance, we might all agree that safety should be the number one priority. Many will feel that aircraft noise is important too.

In the next section, we set out our initial draft Design Principles and ask all stakeholders to comment on these proposals and to add whatever they believe we should also consider in this process. We welcome all engagement and encourage you to respond to this process in order to ensure that we consider every possible point of view.

DESIGN PRINCIPLES

Our Suggested Design Principles for Consideration

In the table below, London Biggin Hill Airport sets out its initial proposed Design Principles. These are separated into:

A. Core Principles	those Principles that we believe are essential for reasons of safety and/or the proper protection of the local amenity;
B. Desirable Principles	those features which, once Core Principles have been assured, it may be desirable to achieve for various reasons, for instance, the expeditious flow of air traffic and/or the reduction of CO2 and other emissions;
C. Other Considerations	any matters which should be incorporated into our design principles but which, whilst informing and enriching our Design Principles, may not form a Design Principle in their own right.

LONDON BIGGIN HILL AIRPORT

A. CORE DESIGN PRINCIPLES

A1. SAFETY - New routes must be safe for all aircraft types for which they are provided. Routes should be designed such that they are easily adhered to by flight crew and do not require aircraft to operate close to the limits of their performance.

A2. COMPLIANCE - Route Designs to be PANS OPS Compliant. New routes should be sufficiently standard that they do not require any additional flight crew training in order to operate to or from London Biggin Hill Airport. To achieve this objective, routes should comply with ICAO PANS OPS internationally agreed criteria.

A3. WORKLOAD - Routes must be designed to keep Air traffic Control workload as low as reasonably practical The correct design of traffic flows can greatly reduce Air traffic Control workload which in turn expedites flow and improves safety. London Biggin Hill Airport will seek to design routes that 'procedurally deconflict' arrivals and departures from each other and from traffic operating in the London Terminal Control Area (LTMA) or the Flight Information Region (FIR) below the LTMA*.

'Procedurally deconflicted' routes mean unique routes that ensure that, provided they are followed, an aircraft will not come into conflict with any other aircraft along that route.

**(The LTMA is the area of controlled airspace that lies above most of London and the South East. This airspace has varying lower 'floor levels' but it is airspace that is restricted and designated for use primarily by large commercial aircraft and business jet traffic. The FIR is the open and unrestricted airspace that lies below and around the LTMA and which can be used by all air traffic including light aircraft and helicopters. In practice commercial aircraft and business jets use the LTMA and almost all non-commercial traffic uses the open FIR).*

A4. NAVIGATION STANDARDS - New routes must be designed to the Required Navigation Performance In order to comply with the proposed standards for the modernised UK airspace as a whole and in order to take full advantage of current and future aircraft navigation system capabilities, new routes must be based on GNSS navigation and designed to RNAV 1 (Area Navigation 1). Further information is available in the CAA Performance -Based Navigation (PBN) Enhanced Route Spacing Guidance (CAP1385).

LONDON
BIGGIN HILL
AIRPORT

B. DESIRABLE PRINCIPLES

B1. ENVIRONMENTAL CONCERNS - Arrival routes should, where possible, aim to achieve the minimum noise and reduced fuel burn.

B2. IMPROVED AIRCRAFT PERFORMANCE - Departure routes should aim to take advantage of the high-performance climb characteristics of typical Business Jet types by offering a continuous and uninterrupted climb direct to 7,000 ft AMSL.

B3. EFFICIENT ROUTES - Arrival and Departure routes should, where possible, be designed to minimise track mileage flown.
In order to minimise emissions and optimise operational efficiencies, London Biggin Hill Airport should, where possible, design arrival and departure routes in order to minimise unnecessary airborne track mileage.

B4. REGULATED AIRSPACE - London Biggin Hill Airport should consider the provision of Regulated Airspace to protect traffic using departure and arrival routes.

Aircraft arriving and departing London Biggin Hill Airport will likely be required to follow 'procedurally deconflicted' routes as they climb to 7,000ft AMSL in order to join or leave the airspace above. This means that, provided they do not deviate from a prescribed and unique route, they will not come into airborne conflict with any other traffic. This is the basis upon which modernised airspace below 7,000ft will operate in future. In order to assure safe separation of aircraft it is therefore imperative that aircraft do not need to deviate from the prescribed route – for instance in order to avoid another aircraft in uncontrolled airspace. The provision of Controlled Airspace would provide essential protection to climbing and descending aircraft through a known air traffic environment where all safety standards can be maintained.

C. AREAS FOR CONSIDERATION

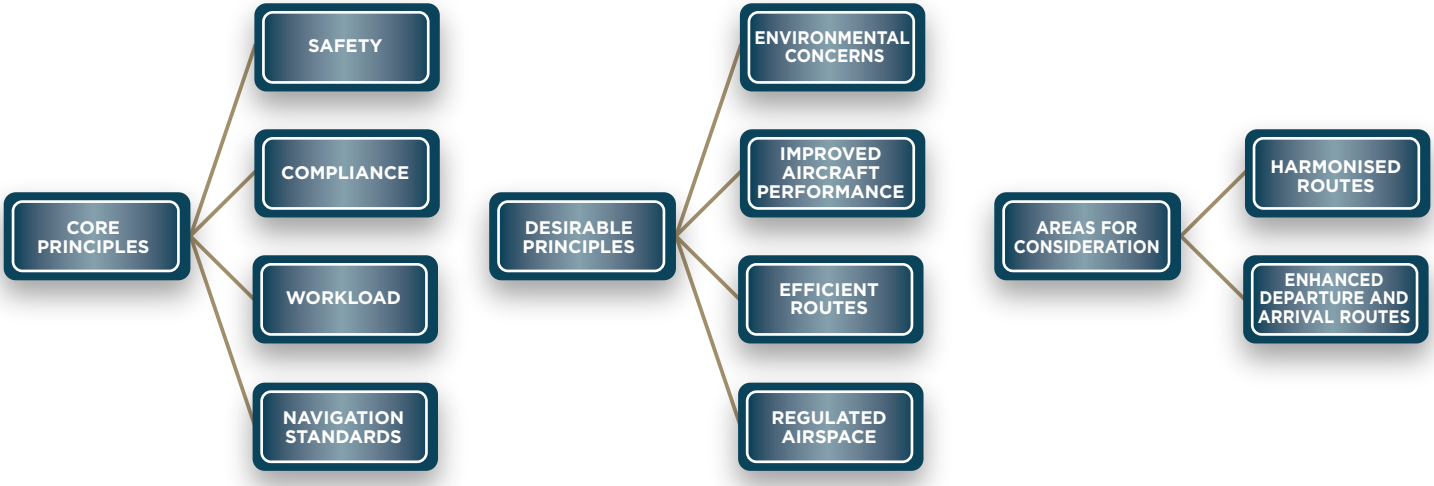
C1. HARMONISED ROUTES - London Biggin Hill Airport should consider the effect of any changes in its flight routes on the behaviour of aircraft using the airspace around Biggin Hill Airport.

C2. ENHANCED ARRIVAL AND DEPARTURE ROUTES - London Biggin Hill Airport should consider how ground noise profiles might change as a result of enhanced/new departure and arrival routes.

LONDON
BIGGIN HILL
AIRPORT

SUMMARY

Design Principles form a qualitative framework which is used to assess the suitability of airspace design options against the strategic outcomes. We have presented a range of Core, Potential and Considered Design Principles which we need to prioritise, to enable decisions regarding our future airspace requirements.



YOUR RESPONSE

Please provide your feedback by one of the following means:

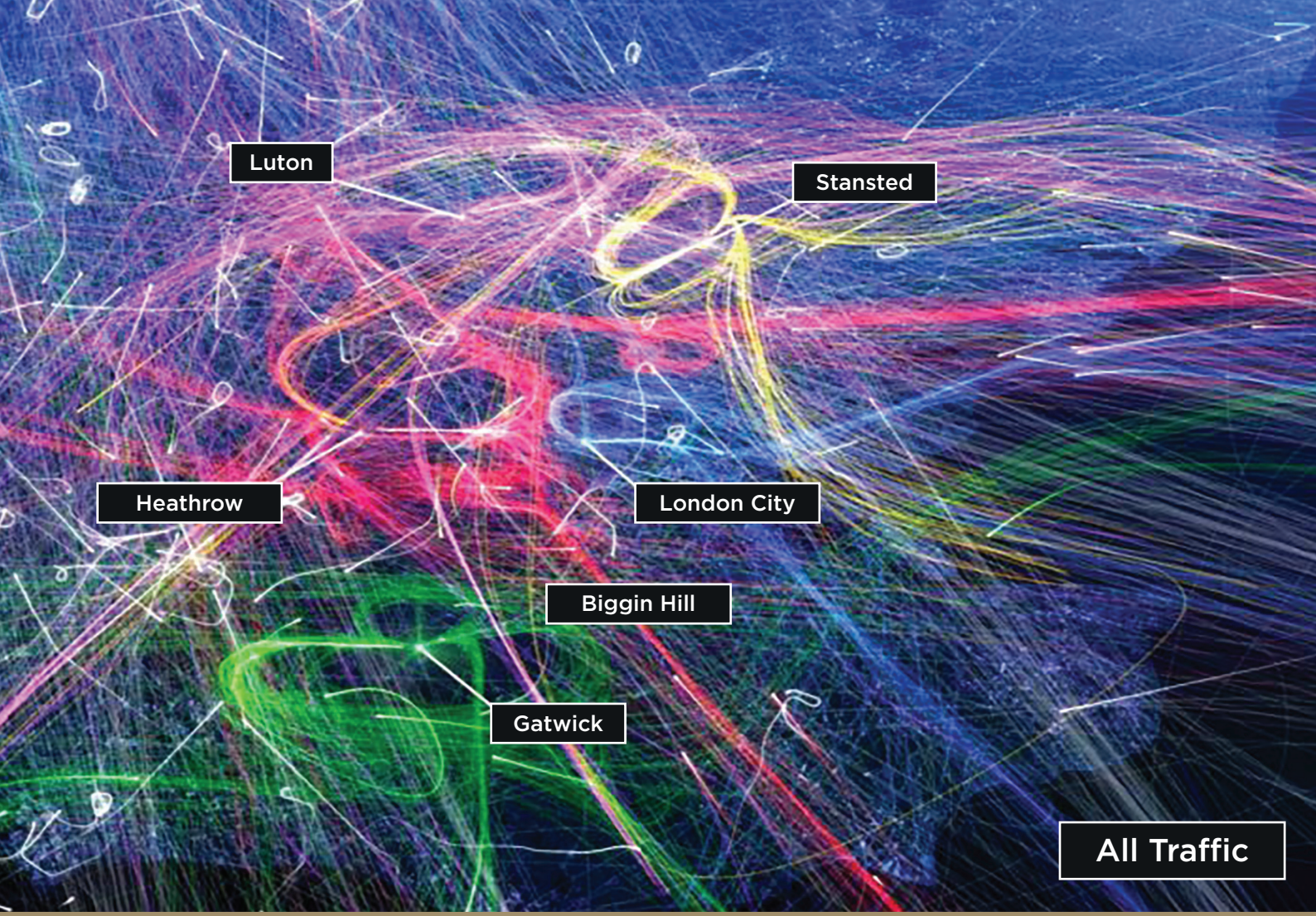
Email: Airspace.Change@bigginhillairport.com

Website: https://yourairport.co.uk/londonairspace

By Post to:-
LAMP AIRSPACE-CHANGE
London Biggin Hill Airport
Passenger Terminal
Main Road
Biggin Hill
TN16 3BH

Please provide your views and suggestions by 14th June 2019.

Your opinion is important to us and will assist in the future development of the airspace surrounding London Biggin Hill Airport.


Luton
Stansted
Heathrow
London City
Biggin Hill
Gatwick
All Traffic