



D LON N

**CITY
AIRPORT**



Airspace Modernisation

Design Principles Workshop

Introduction

- The Government has identified the need to modernise existing airspace to improve capacity, operational efficiency and environmental performance.
- **“Our Future Skies”** (the Government’s airspace modernisation programme) has been launched, forecast to be complete by 2025.
- NATS are developing an ACP to modernise the airspace structure and route network above 7,000 ft.
- Airports in the south-east have been requested to develop complimentary ACPs to ensure future arrival and departure routes link with these high-level changes and to maximise the benefits.



Benefits

- Maximise efficiency
- Maintain and improve safety
- Improve resilience
- Accommodate future demand
- Reduce delays
- Aim to improve climb and descent profiles
- Aim to reduce carbon emissions through reduced fuel burn
- Aim to reduce noise impacts

Who's involved?

CAA

Initiator, regulator,
Defines process
publishes
guidance

Airports

Change Sponsor
for departure and
arrival routes up
to 7,000 ft

Stakeholders

Provide feedback
through
engagement and
consultation

NATS

Change sponsor
for en-route
network changes
(above 7,000 ft)

Process

The airspace change process (permanent changes to the notified airspace design)

Figure 1: Overview of the airspace change process



Timeline

CAP1616 Gateways – Completion dates	Indicative Timeline
Assessment meeting	Complete
Stage 1A – Define (Statement of need)	Complete
Stage 1B – Design Principles	
Develop with LCACC sub-group	May 2019
Full engagement	June – August 2019
Submission to CAA	September 2019
Gateway meeting with CAA	October 2019
Stage 2 – Develop and assess design options	Q2 2020
Stage 3 - Consult	Q2 2021
Stage 4 – Update and Submit	Q1 2022
Stage 5 - Decide	Q3 2022
Stage 6 - Implement	2024/25

Design Principles

- Design principles encompass the safety, environmental and operational criteria and strategic policy objectives that the change sponsor aims for in developing the airspace change proposals.
- The design principles form a framework against which airspace change design options will be developed and evaluated in the future stages.
- They can be contradictory. Principles are therefore typically given a priority rating.

Draft LCY Design Principles – For discussion

Tier 1 (MUST) design principles	Rationale
Must maintain (and ideally enhance) current safety standards	Safety is at the forefront of everything London City Airport does. It is crucial that a new airspace design maintains and where possible exceeds current safety standards.
Must be in compliance with all laws and regulations	To maintain safety and ensure effective integration with the wider airspace.
Must enhance navigation standards by utilising modern navigation technology	Aircraft capabilities have dramatically increased in the last few decades. In order to release these capabilities and maximise the benefits these bring, arrival and departure routes must be designed to make full use of modern navigation technology.
Must provide sufficient capacity to support future demand	If the capacity is not increased, passengers will face increased delays or restrictions in flying as demand is anticipated to rise.
Tier 2 (SHOULD) design principles	Rationale
Should minimise the amount of fuel used and the CO ₂ subsequently emitted	Minimising fuel use (typically by flying a more direct route) lowers carbon emissions and thereby helps to mitigate the impacts of climate change.
Should limit and where possible reduce aircraft noise	Aircraft noise should be limited and reduced where possible to reduce the impact on local communities.
Should minimise air pollution in the local area from aircraft	To maintain a healthy environment for local communities.
Should improve resilience during abnormal operating conditions	Maintaining operations in abnormal scenarios is vital to prevent delays and disruption. If one departure route was not operational for a short time (e.g. due to localised extreme weather events) then another may be used temporarily to enable the aircraft to depart. Its course will then be amended towards its final destination further down-route.

Draft LCY Design Principles – For discussion

	Noise Mitigation	Description
A	Use noise efficient operational practices	To operate in a way that minimises the noise impact e.g. maximising altitude wherever possible.
B	Minimise the number of people newly overflown	To avoid exposing areas to aircraft noise who are currently not exposed.
C	Maximise sharing through predictable respite routes	Operate multiple arrival and departure routes, and alternate between these routes at different times of the day or days of the week. This would allow communities to have predictable periods of respite.
D	Avoid overflying communities with multiple routes, including from other airports	We realise this is occasionally an issue at present and we will take this opportunity to work with other airports to find a solution for this.
E	Maximise sharing through managed dispersal	Operate multiple arrival and departure routes, and direct aircraft along these different routes throughout the day. This would spread the noise across a wider area, exposing more people to noise, but reducing the noise impact that any one area experiences.
F	Minimise the total population overflown	Concentrating aircraft along defined routes to minimise the total number of people exposed to aircraft noise.
G	Avoid overflying noise sensitive areas e.g. schools, hospitals, care homes.	To minimise the exposure to aircraft noise for people in our community who are most sensitive.

Design Principles – Wider Engagement

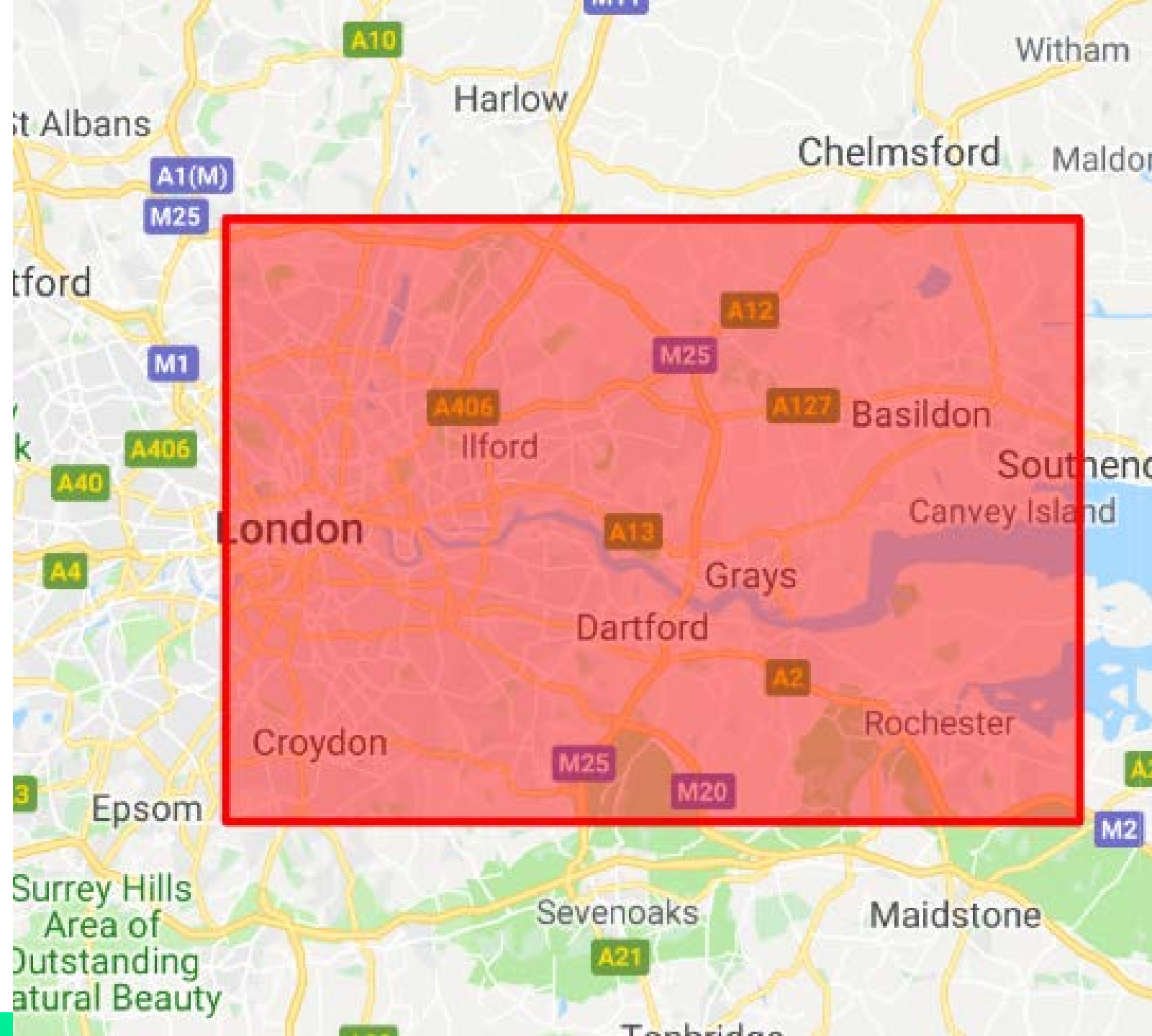
- Two months (21st June - 25th August)
- Emails sent and information published on website
- Key stakeholders including:
 - Local MPs
 - Local Councils (overflowed up to 7,000 ft)
 - GLA
 - LCACC
 - Airlines
 - NATMAC (National Air Traffic Management Advisory Committee)
 - Community Groups
 - ICCAN

How to respond

- [Online response form](#)
- Electronic response form, emailed to ourfutureskies@londoncityairport.com
- Written response form by post to:
 - Our Future Skies
 - London City Airport
 - Royal Docks
 - London
 - E16 2PB

Deadline is 25th August 2019

Potential areas that will be affected (up to 7,000 ft)





**D
LON
N**

**CITY
AIRPORT**