YouGov Phase One Forums Feedback Report

Stage 2 Develop and Assess

MAG London Stansted Airport

YouGov®

July 2021

Future Airspace Research: Stage 2 – develop & assess

MAG London Stansted Airport

Contents

Background, aims and objectives

Background

As part of Government proposals to modernize the way UK airspace is managed, UK airports have been tasked to undertake extensive engagement and consultation with stakeholders and local communities.

From 2018 onwards, London Stansted Airport (LSA) together with NATS, the CAA and other airports will work together to shape the airspace design on which it will formally consult.

Following the completion of the first stage (1B), there is now a need to test the design envelopes amongst general public before final routes are designed.

Aims / objectives

The aims and objectives of the research are outlined below. Ultimately, the research seeks to identify:

- Whether respondents understand the rationale for the design envelopes (e.g. design considerations, arrivals and departures boundaries, and constraints)
- Whether the design envelopes meet the design principles established by LSA.
- Whether there are additional local factors that LSA must consider in their design envelopes.
- Whether the ‘do nothing’ or ‘do minimum’ scenarios are accepted, and what could be done to improve these if they were taken forwards.

Method and sample

The research involved 2 x 3-day online forums with members of the public living to the west and east of Stansted Airport.

Research took place between 14th and 23rd June 2021. A total of 69 were recruited to take part, with 45 completing all 3 days of the forum.

Respondent were recruited to the following specification:

- Mix of locations (under departure / arrivals routes) – to the east or west of the airport
- Mix of age and gender
- Mix of social grade

Respondents were recruited from the YouGov panel, and via Stansted Airport (re-contacting those who took part in a survey).

Forum 1 – WEST

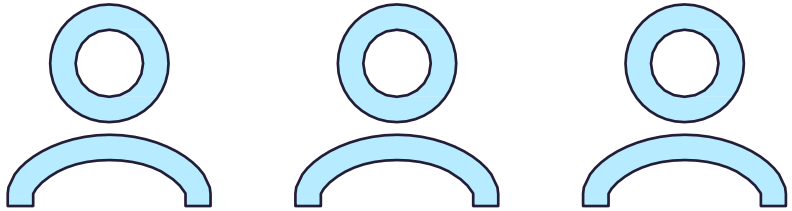
Living in a mix of locations, west of the airport (under departure / arrival routes).

Forum conducted 14th – 16th June

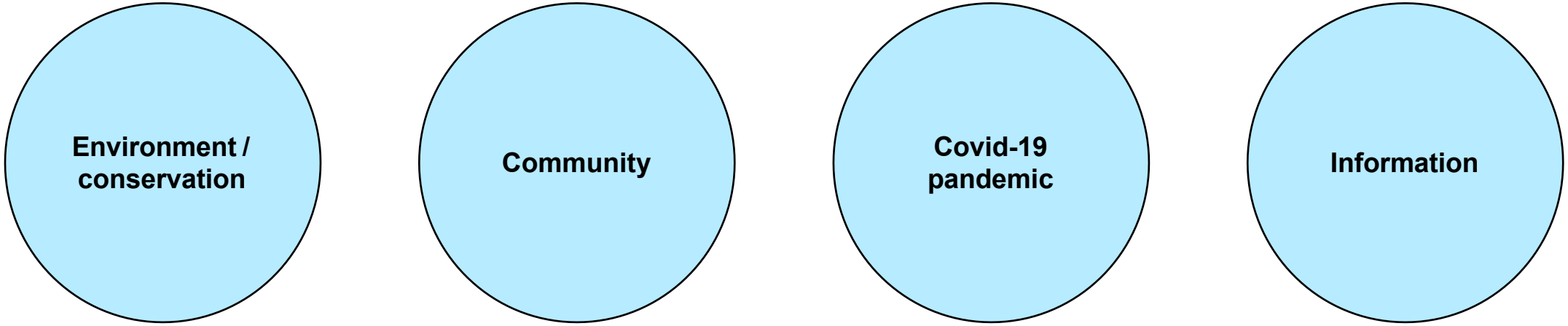
Forum 2 – EAST

Living in a mix of locations, east of the airport (under departure / arrival routes).

Forum conducted 21st – 23rd June



Several topics were raised by respondents throughout the research period, and need to be considered when reviewing the findings



What will the environmental impacts be?

How can we reconcile air travel and emissions targets?

Will this affect me?

Will communities be consulted before the routes are confirmed?

Will people continue to travel to they extent they did before the pandemic?

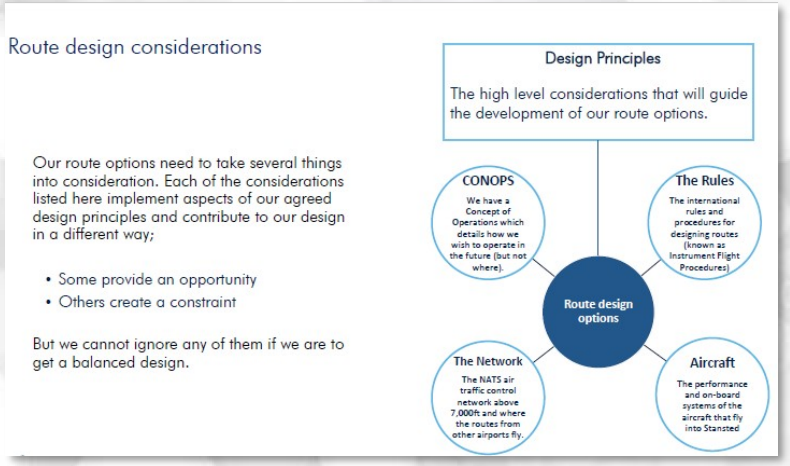
Is modernisation necessary?

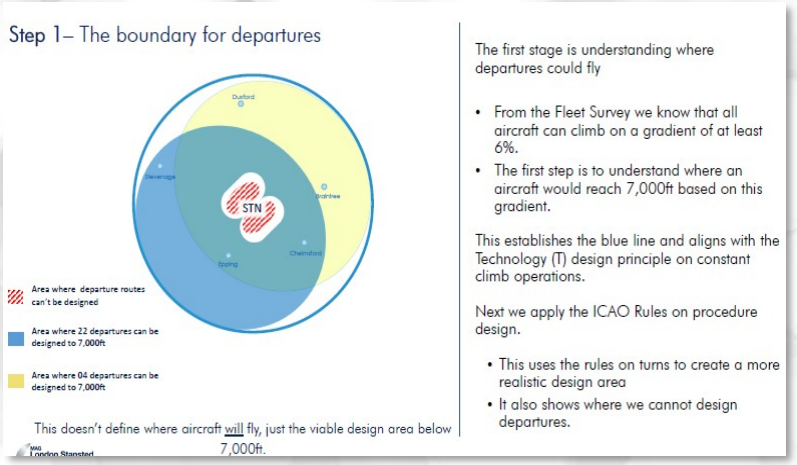
What does this mean in real terms – which locations will be affected?

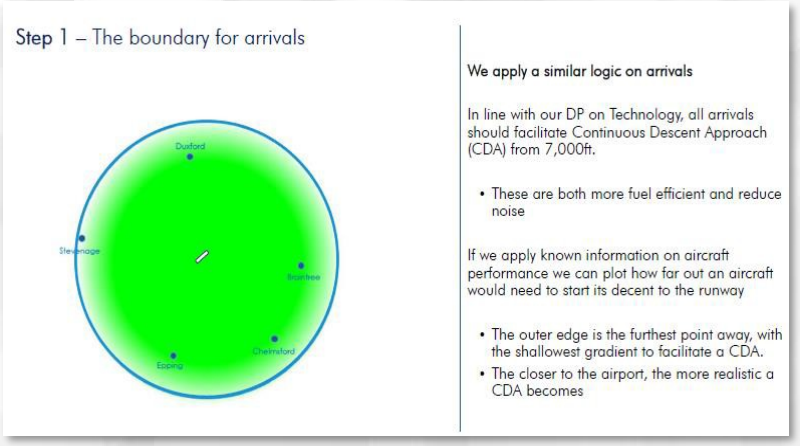
Information is very technical.

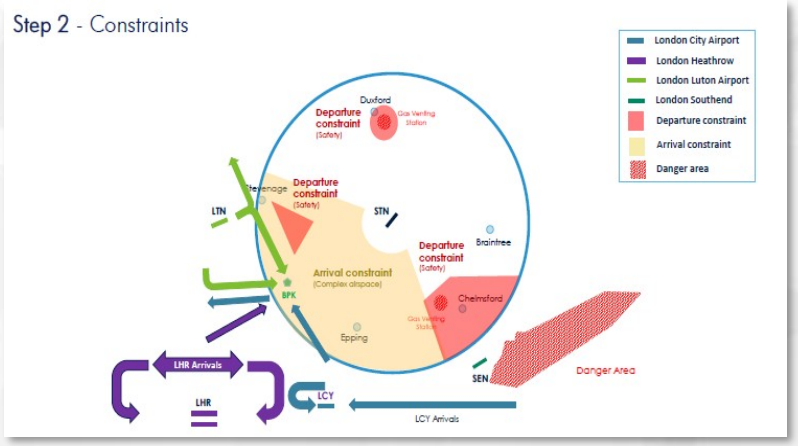
Developing the design envelopes

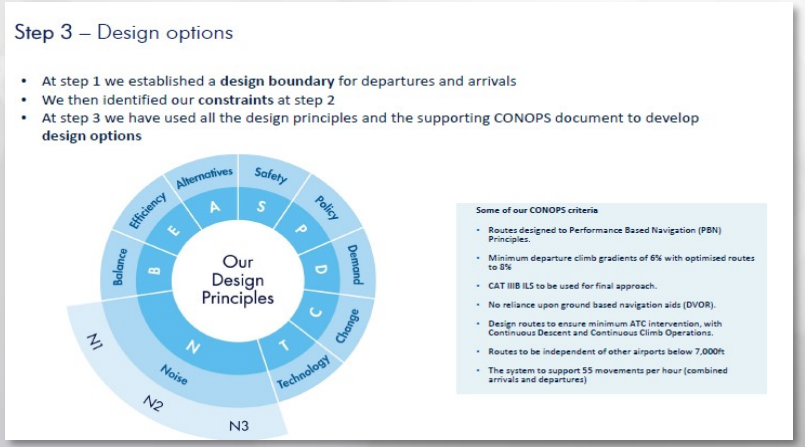
Respondents were shown the considerations that fed into the creation of the design envelopes…











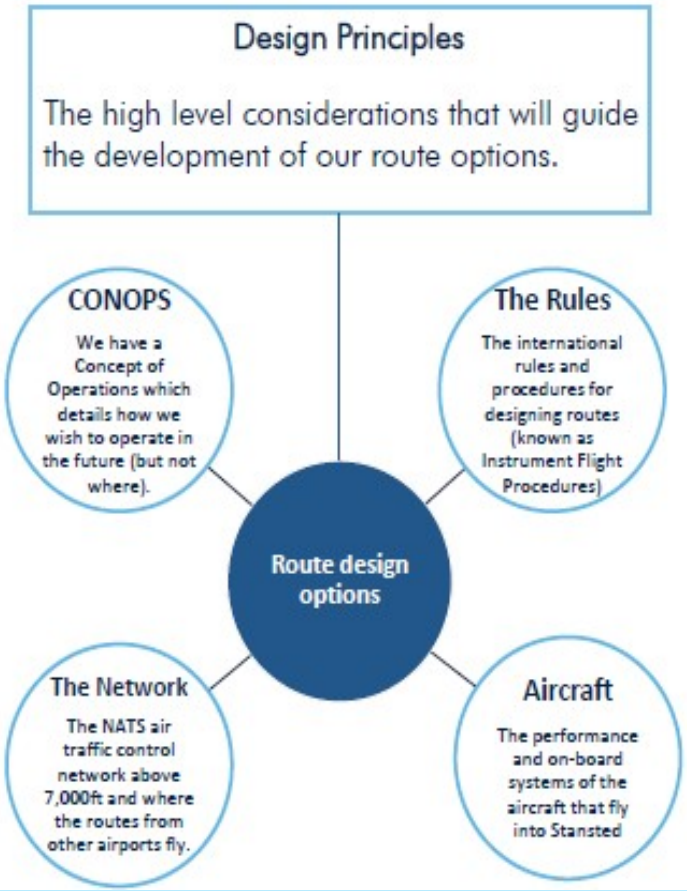
Route design considerations

Route design considerations

Our route options need to take several things into consideration. Each of the considerations listed here implement aspects of our agreed design principles and contribute to our design in a different way;

- Some provide an opportunity
- Others create a constraint

But we cannot ignore any of them if we are to get a balanced design.



"I understand the components of the design considerations, and they make sense to me. But there should be some consideration to those living near airports." East

"The design principles are considered and structured to produce the best possible outcome." West

Most can understand the factors that feed into route design considerations, but question the omission of some elements

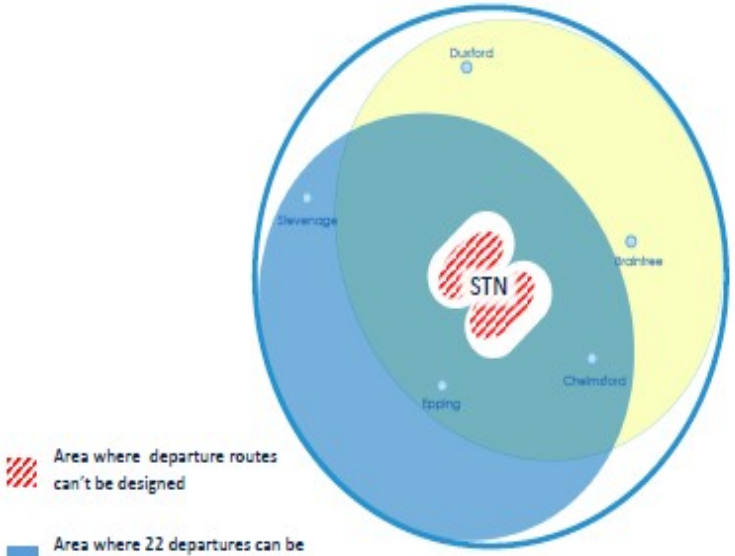
- Many understand the key elements that feed into design considerations and recognize that there are multiple factors to consider and balance against each other.
- They understand that Stansted need to abide by specific rules and regulations ('the rules') and factor in wider elements such as the network and CONOP to produce potential routes that meet different stakeholders' needs.
- There's positivity at the focus on safety – a key consideration for many, along with the focus on technology. Some, however, do question whether aircraft currently have the technology required to fly these new routes.
- Respondents call out several key considerations that are missing from the list, (e.g., climate change, and impact on local communities, night flights), and are looking for reassurance that these factors will be factored into the design envelopes moving forward.
- Individuals also comment on the implications of the pandemic, changes to the airspace modernization programme by future governments etc. on the design considerations.

"I do like that Stansted Airport are taking an approach to look at the modernisation, looking at it from all different angles such as design, safety and other rules etc." West

"The prime consideration must be safety of those flying, and on the ground. But this MUST be combined with environmental concerns to meet emissions legislation." East

Boundary for departures

Step 1– The boundary for departures



Area where departure routes can't be designed

Area where 22 departures can be designed to 7,000ft

Area where 04 departures can be designed to 7,000ft

This doesn't define where aircraft will fly, just the viable design area below 7,000ft.

The first stage is understanding where departures could fly

- From the Fleet Survey we know that all aircraft can climb on a gradient of at least 6%.
- The first step is to understand where an aircraft would reach 7,000ft based on this gradient.

This establishes the blue line and aligns with the Technology (T) design principle on constant climb operations.

Next we apply the ICAO Rules on procedure design.

- This uses the rules on turns to create a more realistic design area
- It also shows where we cannot design departures.

"It clearly shows where departures cannot take place and what aircraft can achieve." East

"The information tells me that all considerations will and [are] being taken to consider the flight path." West

Many are able to understand the boundary for departures, but there are questions around congestion and noise

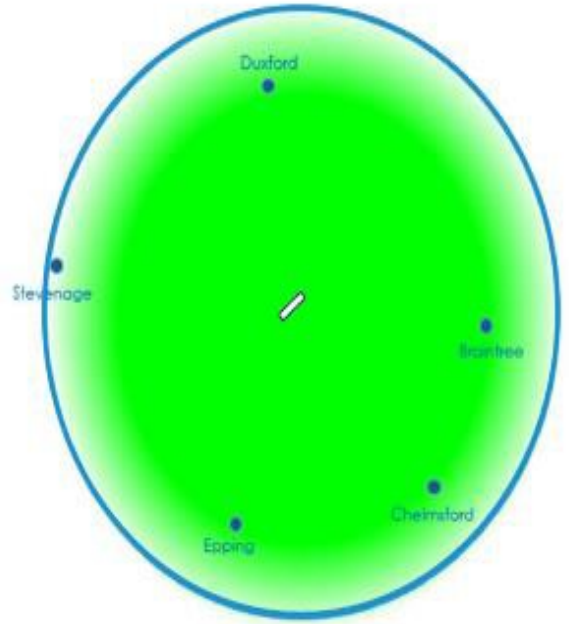
- Respondents think that the defining the boundaries information is clear, and they can see the logic in the departure areas set out for runways 04 and 22.
- Many also understand why routes cannot be designed in specific areas (highlighted on the visual), though a small number are less clear on this.
- There is some surprise at the (relatively small) area in which departures can fly up to 7,000 ft; some think that this could lead to congestion, which could have safety implications.
- Some raise concerns about noise and question whether specific communities (e.g., those in the southwest, which is expected to be congested), will be more impacted by this than others.
- Individuals ask if wider factors have been drawn into considerations around the boundary for departures, such as other airports' plans, any future development plans for Stansted airport, and the impact of other airspace users in the area.

> ***"It seems to me that there is a very narrow window where planes can be safely flown without overcrowding already heavily congested routes."*** West

> ***"It seems to be reasonable because you have taken into consideration noise pollution and safety which are top priorities."*** East

Boundary for arrivals

Step 1 – The boundary for arrivals



We apply a similar logic on arrivals

In line with our DP on Technology, all arrivals should facilitate Continuous Descent Approach (CDA) from 7,000ft.

- These are both more fuel efficient and reduce noise

If we apply known information on aircraft performance we can plot how far out an aircraft would need to start its decent to the runway

- The outer edge is the furthest point away, with the shallowest gradient to facilitate a CDA.
- The closer to the airport, the more realistic a CDA becomes

"It makes sense. You've explained how far the planes need to fly in a straight line to land properly." East

"Difficult balancing act of noise pollution v air pollution." West

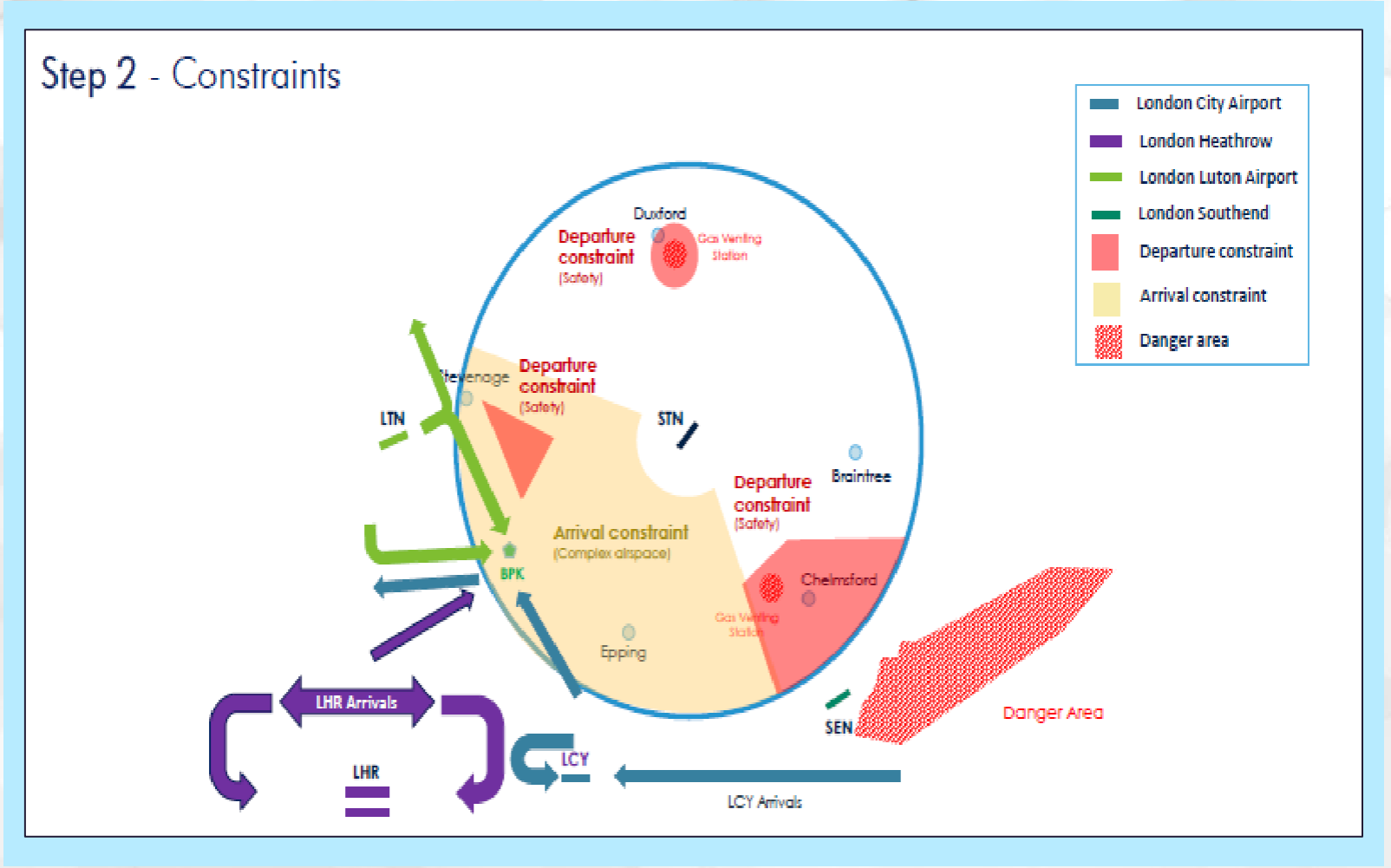
While the information about CDA and its impacts is broadly accepted, there are some questions about the boundary for arrivals

- Many respondents think that the information regarding the boundary for arrivals is clear and logical, and it's seen to follow the same logic as the boundary for departures.
- Most understand the rationale for CDA and recognize that this will have benefits in terms of noise, emissions rates, and aircraft efficiency.
- Others question the extent to which noise will be reduced with CDA and want to see more data / modelling of scenarios in order to feel reassured. Individuals ask if alternatives (keeping aircraft higher for longer, before a rapid descent) would better address noise.
- Some also ask about the impact this will have on the environment, green space and historic areas that fall into this area and ask if this has been factored into plans.
- Finally, some are concerned about areas that will be more heavily overflown e.g., Epping (West) and Braintree (East). One individual also questions the safety implications of low-level descent over built-up areas and gas plants.

> ***"Seems logical as it follows the principles of departures."*** West

> ***"Keeping the noise and pollution measures down is a great significance to local people, but would this impact much of local historical, environment, and other places of interest."*** East

Constraints



"It looks like the south… is very congested, so more use of the areas to the northeast and the east looks to be the way to help to reduce the congestion." East

"There appear to be numerous constraints because of the indicated areas which could cause almost a motorway queuing system of too many aircraft awaiting their descent." West

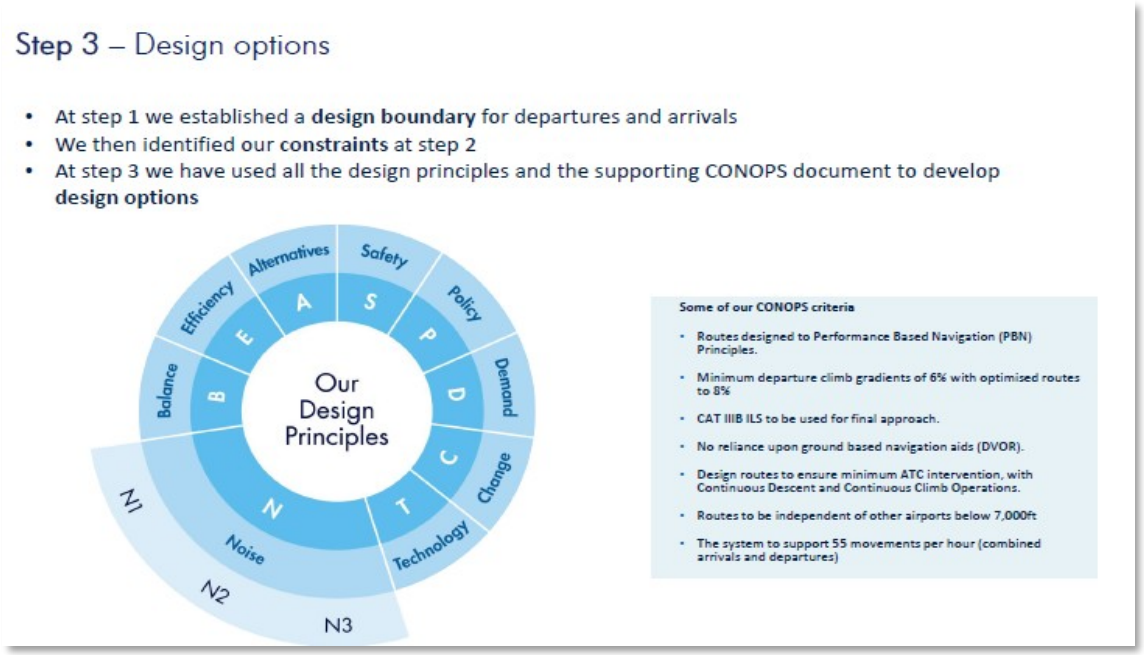
The physical constraints and danger areas are understood; the area to the south of the airport is expected to be more congested than the NE

- On the whole respondents grasp the constraints that need to be factored into route designs, though some do struggle to understand the specifics. Some are surprised about the number of constraints in place and realise that it's a complex picture.
- Many note the inclusion of danger areas and safety constraints and are positive that these have been factored into designs.
- Respondents recognize that the airspace to the south-west of the airport is likely to be congested due to arrivals constraints, which has implications for noise pollution.
- In contrast, the NE area seems freer of constraints and is therefore seen as a safer area to design routes, without adding to congestion; however, a number (East) are concerned of the impact that overflying in this area will have on local communities.
- Some (West) question whether military aircraft and Duxford have been factored into the constraints, given that they also make use of airspace in the area. Individuals (East) question whether local communities and the environment will be factored into the constraint's equation.

"It could become congested in the arrival constraints area due to flight paths mixing. The NE corridor seems free of traffic and would be easier to manage." West

"I didn't expect so much of the area wouldn't be accessible. This can have quite a negative impact of noise for the remaining areas." East

While the design options are generally clear and are accepted, some have final questions about the route design process…



Impact on the locale

Why isn't the environment referenced?

Why isn't community impact referenced?

Future-proofing

Does this take into account Covid's impact on air travel?

Is this subject to government approval?

Logistic constraints

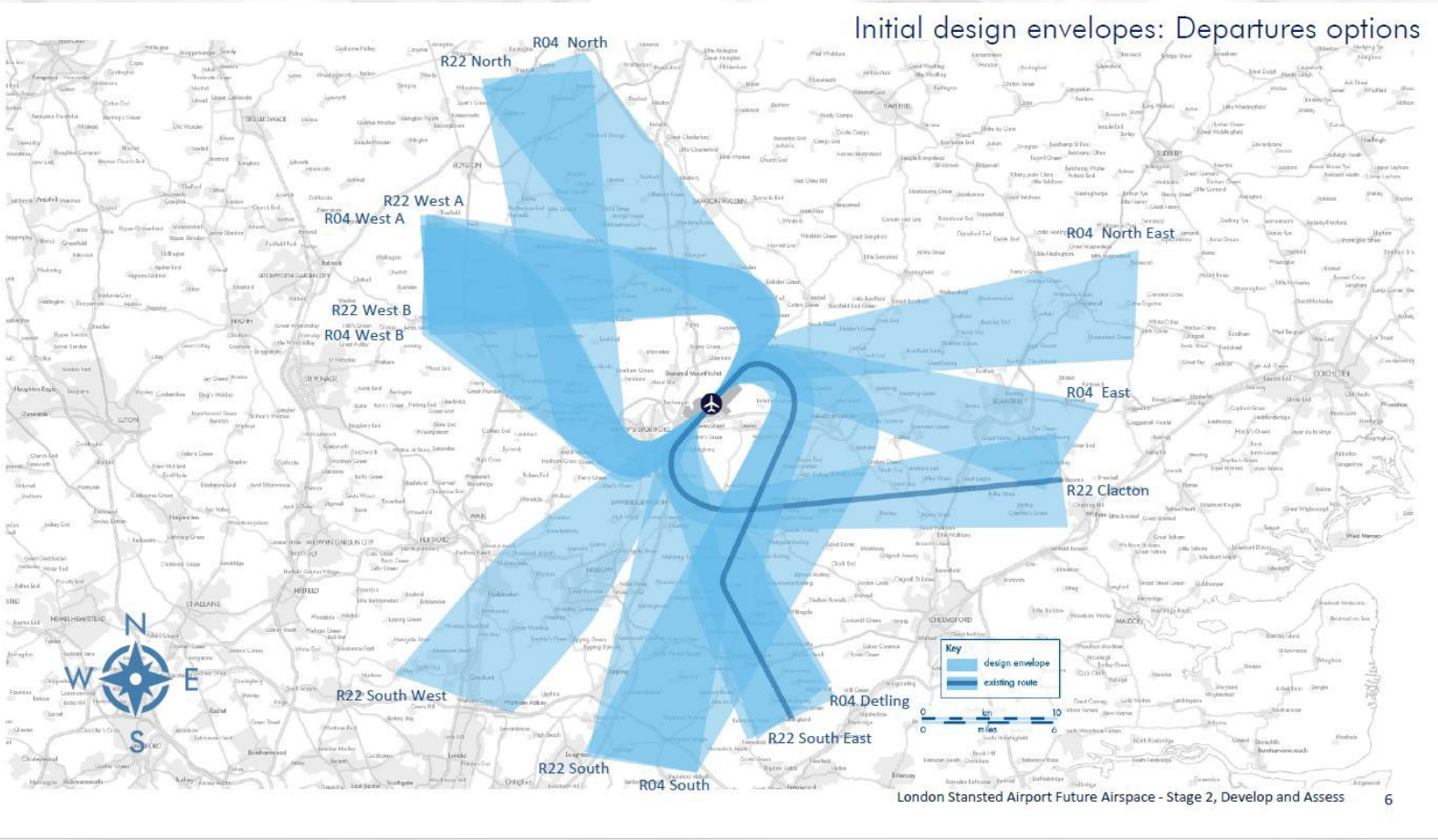
55 movements an hour is high – is it realistic?

What is the contingency plan in case of tech failure?

How will this fit in with other airports' plans?

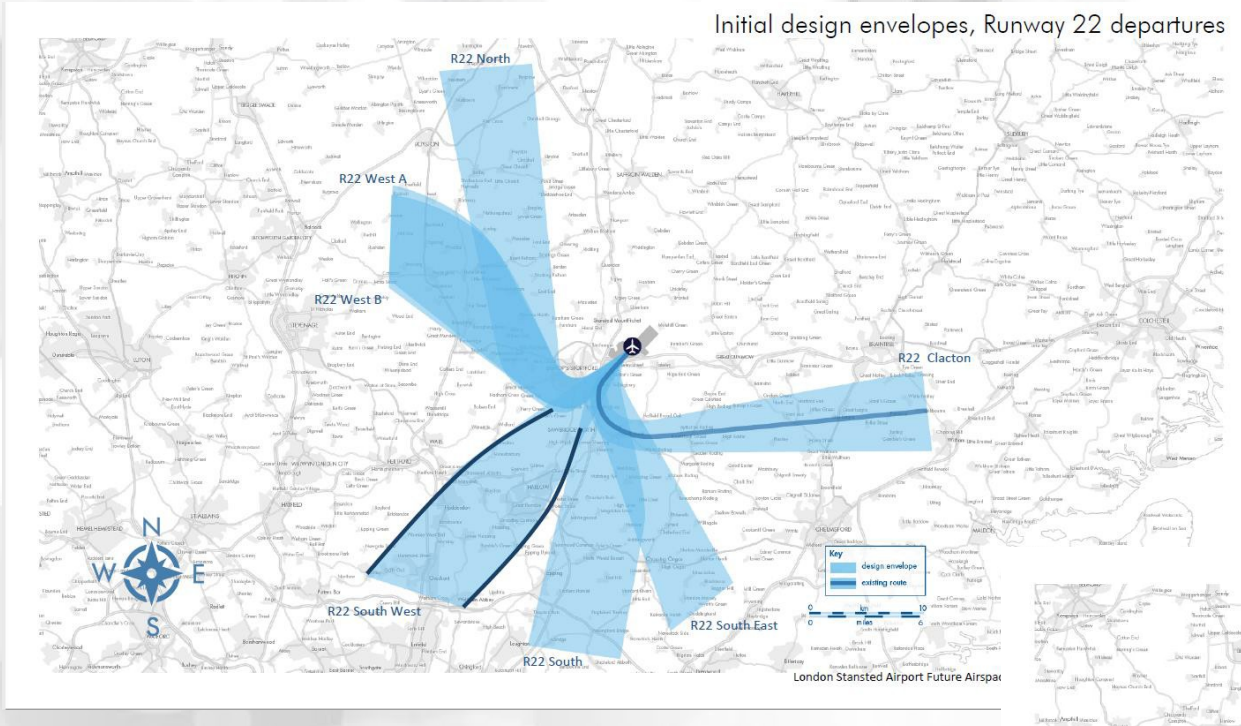
Departures design envelopes

Respondents were shown design envelopes for departures, plus explanatory details, and asked to share their feedback…

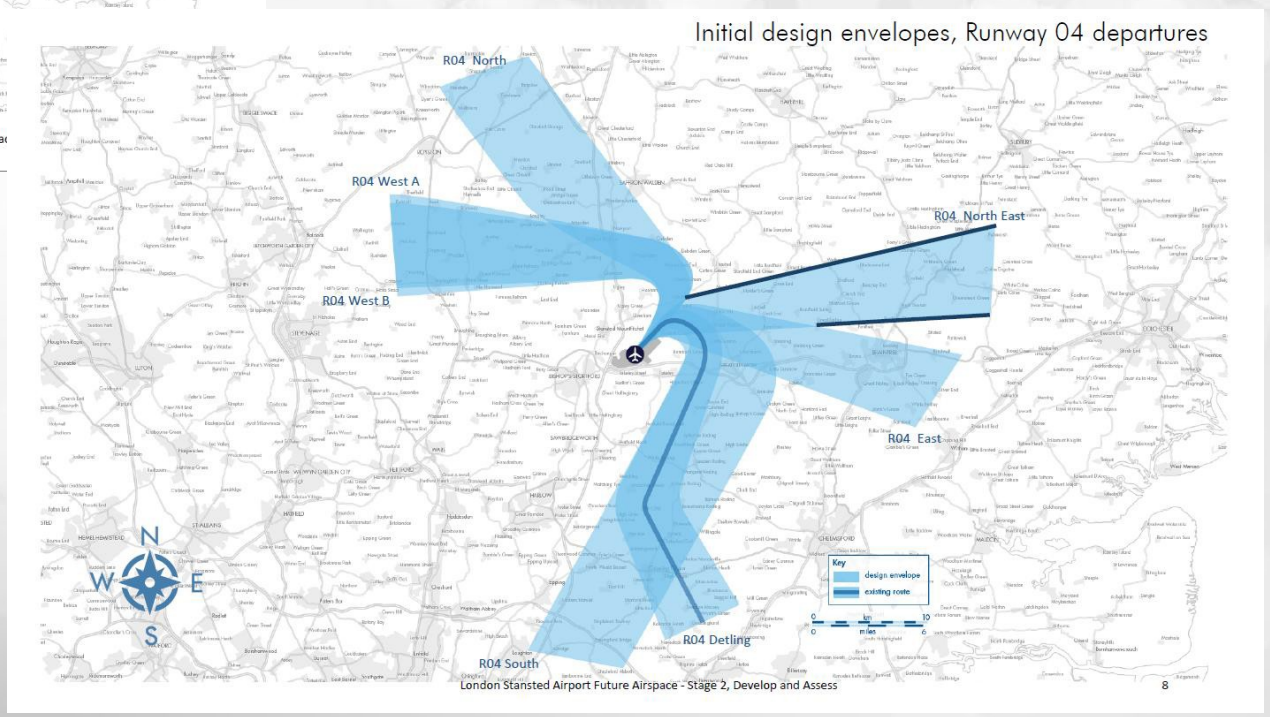


"I think Stansted Airport has identified design envelopes that will align with their design principles such as safety, keep noise pollution and carbon emissions to a minimum." East

"The design principle in the plan takes into consideration the local community, the effect air travel can have on noise pollution and creates an adaptable design for future airspace growth within all London airports." West



"Living in Thaxted it seems whichever design envelopes are used aircraft will still be flying straight over this historic town." East



"The identified constraints and design considerations have as 'best practice' been practical and the identified routes have given preference to the population density beneath the proposed paths." West

The majority think that Stansted has developed routes that meet their design principles

- Respondents understand that constraints have been identified, and other factors have been taken into consideration when developing the design envelopes.
- The design envelopes align with key DPs including safety, technology, community, pollution / emissions, noise, and the movements of other airports; some think that the design envelopes tackle noise issues related to the current routes (e.g., Felsted).
- Some do raise specific questions, however, and some also request more information at this stage in order to assess the design envelopes more fully:
  - By moving the routes to the north, it avoids high density areas like Royston and Stevenage, which is positive, however, how many flights would there be?
  - Departures from Runway 22 in the southwest are likely to fly in a busy area of airspace, which may have complications (e.g., congestion).
  - Departures from Runway 04 in the northeast mainly use existing departure routes, and there are questions about how this will translate / what this will look like in future.

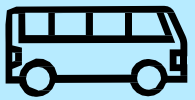
"They are trying to reduce noise where possible, air traffic etc. but there are constraints which limit their options." West

"I think your suggestions here are in line with the design principles. You are looking at sharing the noise distribution this way which is good for anyone already affected by departures on these routes." East

For those living to the west of Stansted, several local issues are flagged that need to be taken into account of plans

Towns / villages
Some areas are likely to be heavily overflown (e.g. **Barkway, Anstey, Ickfield** villages, **Bishops Stortford**) and need to be consulted.

Local landmarks
Thought needs to be given to **local wildlife** in the rural surrounds, plus venues such as **Audley End** where there are outdoor events.



Future developments
New **residential developments** on rural land (e.g., near Harlow) and **highway build schemes** need to be considered.

Airports / airbases
Consideration should be given to aircraft from **other airports, airbases and IWM Duxford** that also use this airspace.

Those to the east of the airport have similar local considerations, although they also talk about the importance of spreading the burden

Populated areas
There are many **towns and villages** in the area that could be affected; **residential build plans** must also be noted.

Historic / green spaces
Some note **historical towns** in the area (e.g. Thaxted), and question whether **SSSIs and green spaces** (such as parks) will be affected.

Airspace users
It will be important to consider **other airports** to avoid airspace becoming congested / increases in **stacking** (and noise).

Spreading burden
There a desire to **spread noise** across a wider area to share the burden, but **newly overflown areas** should be consulted on.

While some suggest improvements to the ‘do minimum’ scenario, most think that new / more efficient designs should be adopted

Consult with communities

A benefit of the ‘do nothing’ scenario is that no new people are affected: those currently overflown already live with the noise impacts. However, there are calls for more community liaison and a review of ways to reduce noise (e.g. continuous climbs use various departure routes during the day, change climb rate from 3.3%-8% of the proposed envelopes) to improve the situation.

Spread the impacts

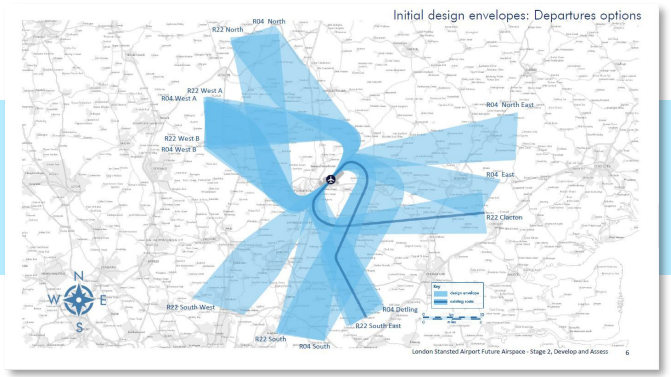
Others suggest small changes to the routes to help spread the impacts of overflying. Individuals call out the need to work with other airports to avoid congestion and its impact in specific areas, while others suggest spreading routes within corridors to spread the impacts of noise and pollution over a wider area. Providing further relief and respite from current routes is key.

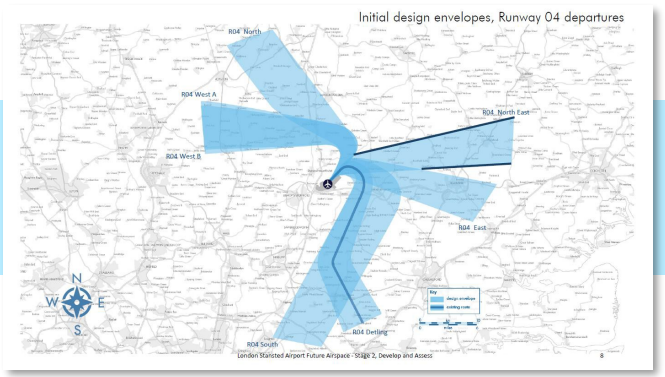
Start from scratch

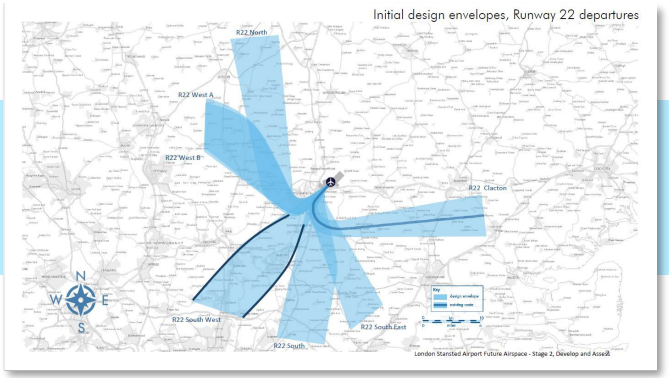
While some respondents can identify improvements to the ‘do minimum’ scenario, most think that this would not be the most effective approach. Many think that starting from scratch would allow designers to create the most effective routes that meet DPs and lead to greater efficiencies. This would tackle noise and emissions, and cater to increased need, post-Covid.

“The do minimum scenario doesn't align with [the] design principle of reducing noise which I think would be key for a lot of residents – so introducing something that would allow this would definitely be an improvement.” East

Respondents raise some final questions around the impact of the departures design envelopes







How will this impact the environment?

Covid has impacted air travel – is this work necessary?

Will they add in other envelopes after testing?

Would night flights be spread across envelopes?

Will routes within envelopes be split to offer noise respite?

Design envelopes focus on densely populated areas already heavily affected by air traffic.

There will be a need to think about towns being overflown.

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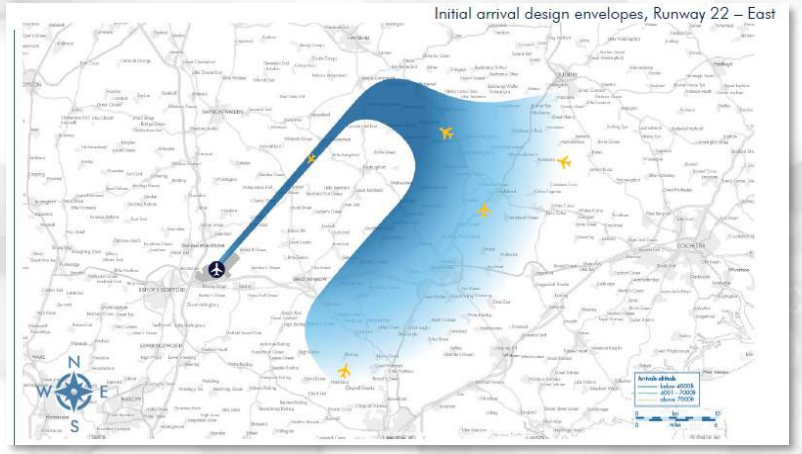
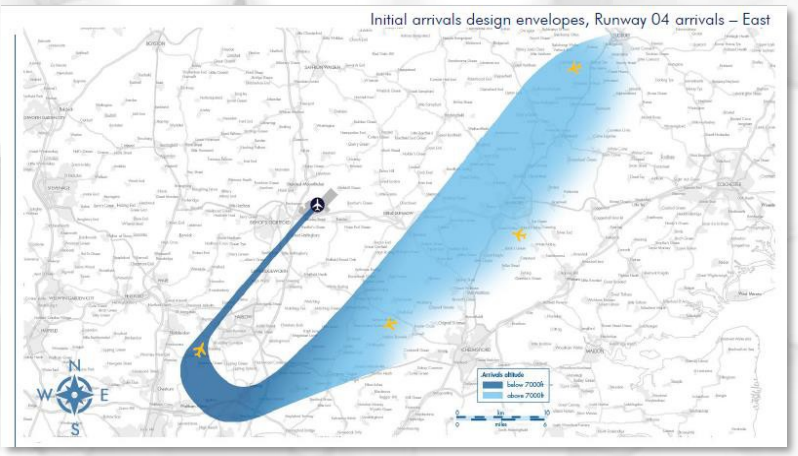
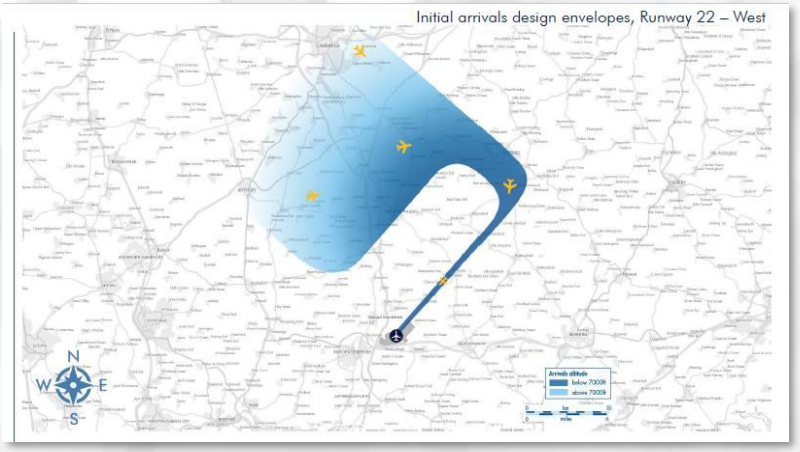
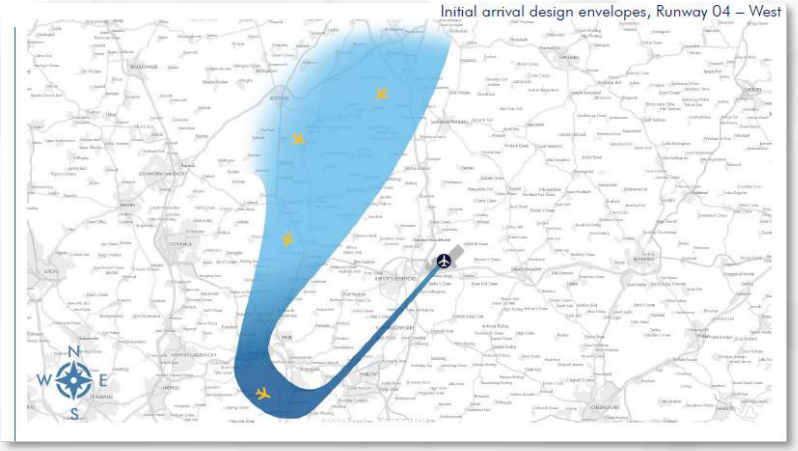
Arrivals design envelopes

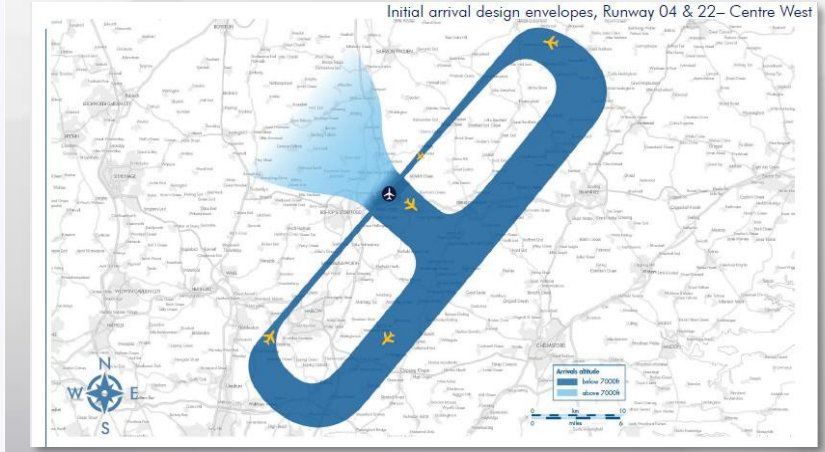
Respondents were shown design envelopes for arrivals, plus explanatory details, and asked to share their feedback…

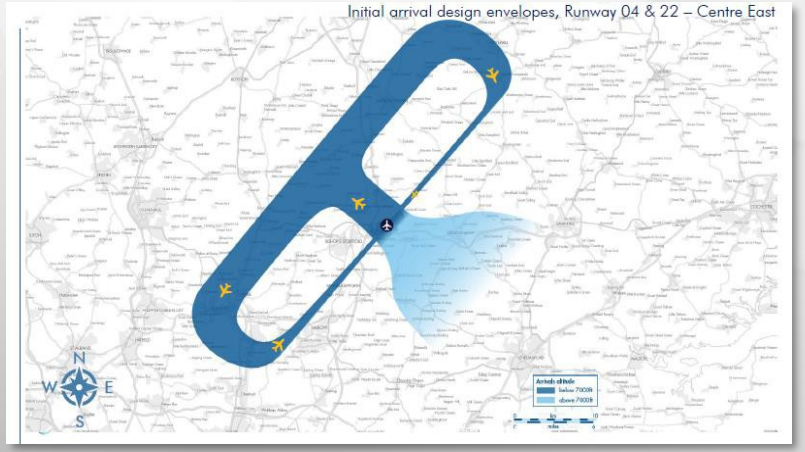












Most agree that Stansted has created arrivals design envelopes that align with their design principles

- Respondents broadly agree that Stansted's design envelopes are considered and say that they have taken the design principles into account / met the criteria set by the organisation.
- Many say that consideration has been given to safety, noise and technology, as well as the local area (and competing airspace), as well as rules / regulations and efficiency.
- However, there are some questions about specific design envelopes for arrivals, and respondents want reassurance around noise and wider impacts in certain areas:
  - Arrivals from E and W fly over more densely populated areas on their descent to runway 04 (more so than onto runway 22), and there are questions about noise.
  - Individuals question whether there is enough space for arrivals from E or W turning into Stansted on their final descent and ask whether there is enough airspace for traffic for neighboring airports.
  - CE and CW routes may be challenging for those that live closest to the airport, as there is little opportunity for respite from noise.
  - CE arrivals will fly over Saffron Waldon, and the route appears to be concentrated rather than dispersed, which will likely impact respite.

"Both centre east and centre west fly over populated areas to the south of the airport during their descent below 7000 feet. Again, I have to question if this meets the criterion for noise?" West

"I think the design envelopes do align with Stansted Airports design principles as they have planned routes that do not obstruct other airports and to facilitate continuous decent (amongst others)." East

Respondents have different views on the different arrivals design envelopes, based on areas being overflown and the people affected

Runway 22 – East
This seems to be the most preferred design envelope as aircraft would fly over less populated areas than for 04 and Centre West and East butit would affect some historic towns in the area e.g., Thaxted, Great Sampford.

Runway 22 – West
Even though aircraft in this design envelope would also fly over less populated areas than other 04 and Centre envelopes, it would affect areas of natural beauty and recreation.

Runway 04 – East and West
These design envelopes appear to cover a relatively small footprint but aircraft would fly over more populated areas near Bishop's Stortford and Harlow.

Runway 04 & 22 – Centre West and East
These envelopes cover very populated areas and have a larger footprint, meaning that more people would be affected by noise than with the other options.

Those living to the west of the airport mention several local points to consider in regards to arrivals design envelopes

Locations

Many **populous areas** would be affected by arrivals routes inc. **Harlow Sawbridgeworth,** and **Bishop's Stortford.**

Rural areas

There are lots of **walking and cycling routes** in S Cambs, and **green spaces** that would be impacted by new routes.

Future plans

Hertford, Ware, Harlow and **Bishop's Stortford** are likely to see **new housing developments**, which would be impacted by flight paths.

Hazards

Military / IMW Duxford aircraft will be using the same airspace; **danger zones** and **gas plants** need to be borne in mind too.

Residents living to the east of the airport call out the need to consider specific locations, and again, talk about the need to spread the burden

Locations
A number of **populated areas** will be affected by the design envelopes, from **Thaxted**, through to **Saffron Walden**, and **Ashdon**.

Green spaces
Individuals note the number of **areas of natural importance** in this area, **woodlands** (Hatfield forest), and **SSSIs.**

Future plans
Some call out the potential for new **housing developments** in the area, which should be factored into plans.

Spreading burden
Some areas may be **heavily burdened**, and there's a desire to **spread noise impacts** across locations wherever possible.

The vast majority of respondents do not support the ‘do nothing’ scenario as it fails to tackle some of the current challenges

‘Do nothing’ is not an option

Almost all respondents say that the ‘do nothing’ scenario is not an acceptable response, given the alternative options. Most agree that the current routes have limitations in several important areas, and it will be impossible to tackle these challenges as it stands. Just a small minority would support the ‘do nothing’ option if it was applied to departures too.

Noise / emissions must be addressed

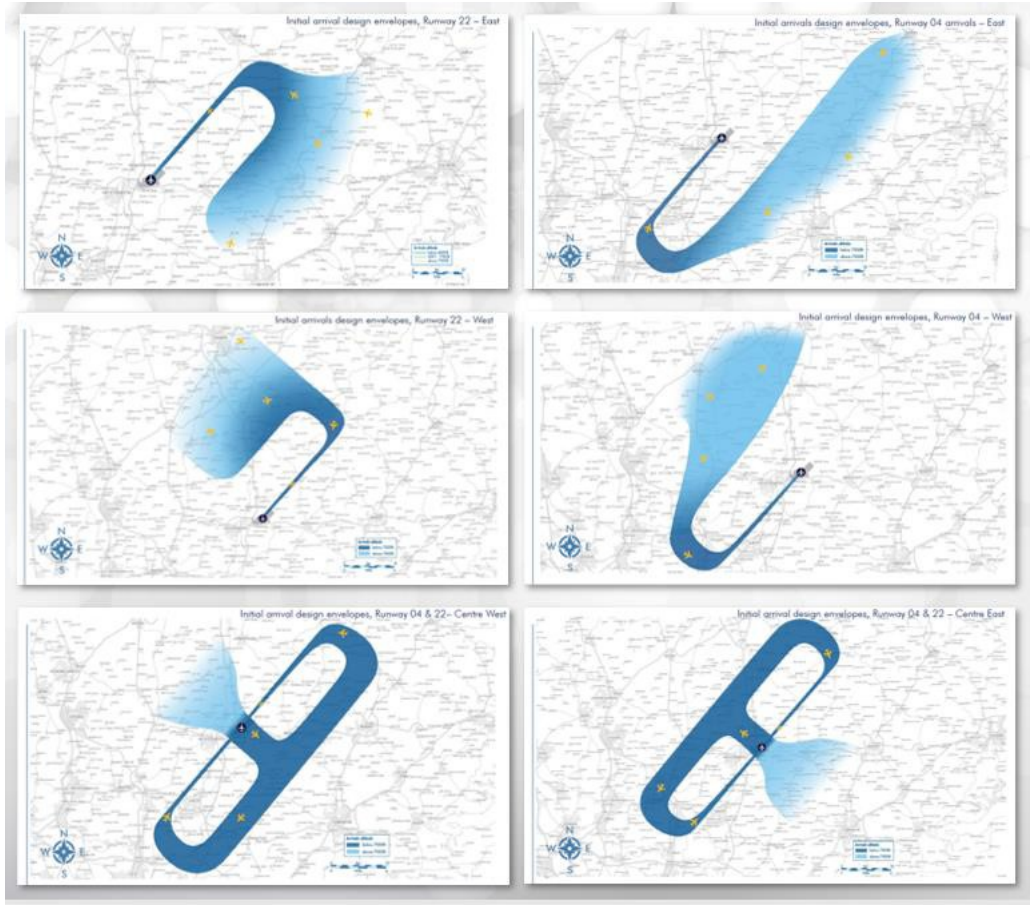
Noise is a strong concern for those who are affected by noise from current flight paths in particular, and many comment on the environment and emissions. Respondents recognise that these will not be tackled with the ‘do nothing’ scenario and are therefore open to newly designed routes that consider noise and emissions as part of the design process.

Efficiency must also be assured

Many recognise the need for a system that is fit-for-purpose and future-proofed, and so investing in the most up-to-date technology is a necessary step to increase flight efficiency. The ‘do nothing’ scenario would not allow for this, and as it relies heavily on ATC it could further undermine efficiency, cause holding patterns, delays and diversions.

“Do nothing would not seem to be an option. As passenger numbers increase at the airport extra flights will make the whole process of managing landing and taking off far more difficult effecting emissions and noise for residents.” East

Final feedback focuses on environment, noise and safety, as well as the needs of residents who are likely to be affected.



What are the pollution impacts?

What are the noise impacts? How will respite fit in?

Can there be multiple routes in one envelope?

Clustering of routes will leave some areas more affected.

E and W to runway 22 fly over fewest people.

There will be a need to consult.

Final thoughts

Final thoughts

1. Respondents understand the factors that have fed into the creation of the design envelopes; DPs, departures and arrivals considerations and constraints have been clearly considered.
2. However, for many, the environment is a core consideration that is missing; while this is referenced in the DPs some say that this should be drawn out / specifically addressed in the design process.
3. Departures design envelopes are broadly considered to align with DPs, however, there are some questions about the impacts on local communities / the local environment, and questions about how other airspace users fit in.
4. Arrivals design envelopes are also said to align with DPs, however, some envelopes impact local communities more than others, and some state the importance of 'spreading the burden' here.
5. Respondents can see the benefits of designing new routes, and as a result there is little support for the 'do minimum' / 'do nothing' scenario; current challenges will not be addressed if the status quo is maintained.

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July 2021

Future Airspace Research: Phase 2 – develop & assess

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