Stage 2
Baselines and DPE Criteria Change

London Southend Airport FASI(S) ACP

ACP-2018-90

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Abbreviations

ACP	Airspace Change Proposal
AONB	Area Outstanding Natural Beauty
ATC	Air Traffic Control
BKY	Barkway
BPK	Brookmans Park
CLN	Clacton
CPT	Compton
DA	Danger Area
DET	Detling
DP	Design Principle
FASI(S)	Future Airspace Implementation South
IFP	Instrument Flight Procedure
LAM	Lambourne
LAMP	London Airspace Management Programme
LSA	London Southend Airport
LTMA	London Terminal Manoeuvring Area
MoD	Ministry of Defence
NERL	NATS (En-route) Ltd
NTK	Noise and Track Keeping
RNAV	Area Navigation
RNP	Required Navigation Performance
RSPB	The Royal Society of the Protection of Birds
SPA	Special Protection Area
VOR	Very High Frequency Omni-Directional Range

Introduction

London Southend Airport is in the process of redesigning the arrival and departure routes as part of a nationwide programme of airspace modernisation.

This Airspace Change Proposal (ACP) is part of the Government's Airspace Modernisation programme and follows the CAA's CAP 1616 process. There are 20 other airports and NATS involved in the wider programme (FASI-South).

London Southend Airport is responsible for redesigning their routes up to 7000ft.

Introduction
Stage 1 – Design Principles

In September 2021, a document titled LSA FASI(S) ACP: '**An Introduction to Design Principles**' was issued to the stakeholders. This document contained an introduction to the ACP and the draft Design Principles.

Stakeholders were provided with a link to an online survey and 38 days to respond and the opportunity to contribute to the Design Principles.

A total of thirty-four responses were received via the online survey, and two additional responses via email. These responses helped form the Design Principles we are using today; the process is detailed in a document titled '**Response on Design Principles'.**

All documents relating to this ACP, including progress, can be found on the ACP Portal:

London Southend Airport, FASI- South, redesign of departure and arrival routes

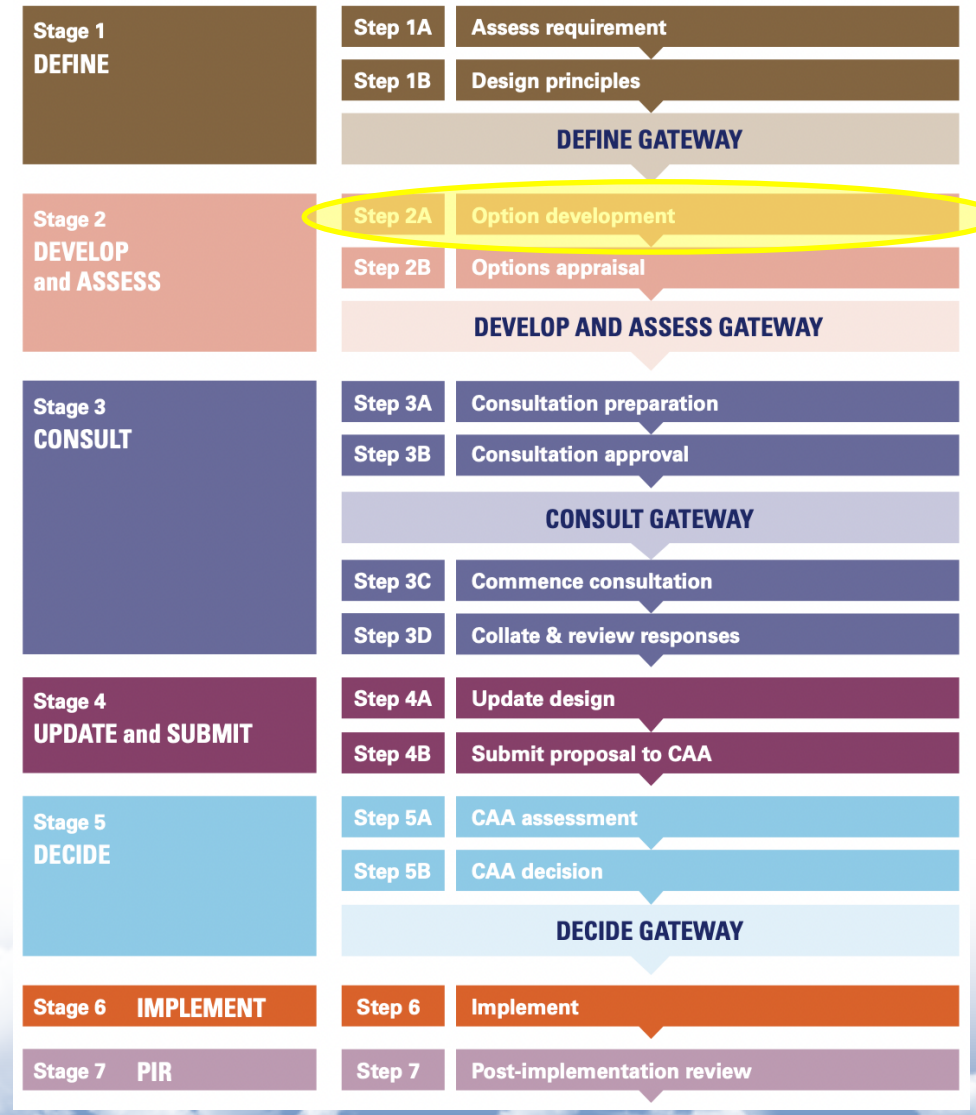
Airspace change ID: ACP-2018-90

London Southend Airport passed the Stage 1 Define Gateway on the 31st March 2022.

Design Principles

Design Principle Number & Title	Description
1- Importance of Safety	The airspace design and its operation must maintain or, where possible, enhance current levels of safety.
2- Overflight	The new procedures should not increase the number of people overflown by aircraft using the Airport and, where possible ,options that provide a level of dispersion should also be considered.
3- Noise Footprint	The design should limit, and where practicable reduce, the impact of noise to stakeholders on the ground and, where possible, periods of built in respite should be considered.
4- Tranquillity	Where practical, route designs should limit effects upon sensitive areas. These may include cultural or historic assets, tranquil or rural areas, sites of care or education and AONB's.
5- Emissions and Air Quality	The proposed design should minimise CO2 emissions per flight.
6- Operational Requirements	The new procedures should address the needs of most operators at LSA.
7- Airspace Dimensions	The volume and classification of controlled airspace required for LSA should be the minimum necessary to deliver an efficient airspace design, considering the needs of all airspace users.
8- Airspace Complexity	The airspace design should seek to reduce complexity and bottlenecks in controlled and uncontrolled airspace and contribute to a reduction in airspace infringements.
9- Technical Requirements	The design shall be fully compliant with PANS-OPS and UK CAA criteria to meet the technical capability requirements of aircraft using the airport.
10- Systemisation	The arrival transitions and departure procedures shall be deconflicted and integrate with the en-route network, as per the FASI(S) programme, and, in the case of the arrival transitions, shall integrate with the Instrument Approach Procedures (IAPs) reducing the requirement for tactical coordination.
11- Operational Cost	Provided it does not have an adverse impact of community disturbance, procedures should be designed to optimise fuel efficiency.
12- AMS Realisation	This ACP must serve to further, and not conflict with, the realisation of the AMS.
13- PBN	The new procedures should capitalise on as many of the potential benefits of PBN implementation as are practicable.

CAP1616 Process



We are here

Stage 2: Options Development
LSA Progress

In December 2023 London Southend Airport resubmitted the Stage 2 documentation for the FASI(S) ACP. The ACP did not pass the gateway.

One of the issues highlighted was that a ‘do-nothing’ baseline needed to be included alongside the ‘do minimum’ baseline presented.

It was also noted that the assessment criteria methodology for the Design Principle Evaluation incorrectly assessed the options against the baseline rather than the options against the specific wording of each Design Principle.

Overview of Presentation

This presentation firstly introduces two new baselines for each suite of options (slides 11 to 31). For each suite, the baseline is presented over Google satellite imagery and the En-Route chart followed by the same two baselines together with the associated options.

Secondly, the newly developed Design Principle Evaluation (DPE) criteria is described alongside the old critera with further explanations for each of the 13 Design Principles (slides 32-45).

Finally, DPE criteria change examples are provided; this gives examples using two departure options and one arrivals option to demonstrate how the new criteria has impacted the assessment (slides 46-50). (Note the DPE for all options can be found in the Supplementary Information Document – LSA Design Principle Evaluation).

What we need from you

Do-Nothing Option and Do-Minimum Option

This presentation is being sent out to all stakeholders to introduce 20 additional or amended baseline options.

At this stage we will be asking for your feedback on the **Design Principle Evaluation** for these options. This is to ensure we are applying the final Design Principles in a manner consistent with your expectations.

The link to an online survey is provided in the email. Please use this survey to give us your feedback.

*It is important to note, we are still early in the CAP 1616 process and this is not a consultation on final routes, rather it is an assessment of high-level concepts against the Design Principles you helped us develop.

We will be holding an information session for discussion and feedback at 09:30 on 23rd July 2024.

Please find the link to book onto this session in the email.

What we need from you

Design Principle Assessment Criteria

A supplementary information document has been sent to you which shows the Design Principle Evaluations for all of our options. (Note: slides 47-48 are worked examples)

This presentation serves as an update of the changes made to the way the options have been assessed, please note that the Design Principles themselves have not changed. There is a section provided in the survey should you wish to provide feedback.

London Southend Airport has a new Stage 2 gateway on 31st October 2024

Baselines

Do-Nothing Option and Do-Minimum Option

The 'Do-Nothing' Option

The 'Do-Nothing' Baselines are reflective of today's operation and encompass the Airspace and Procedures as they would remain if there were to be no change.

They show where traffic currently flies in today's operation and provide us with a 'baseline' from which to assess the positives and negatives of the other options we have created.

The 'Do-Nothing' Baselines have been defined using NTK data, current procedures, and discussion with operational Air Traffic controllers.

The 'Do-Minimum' Option

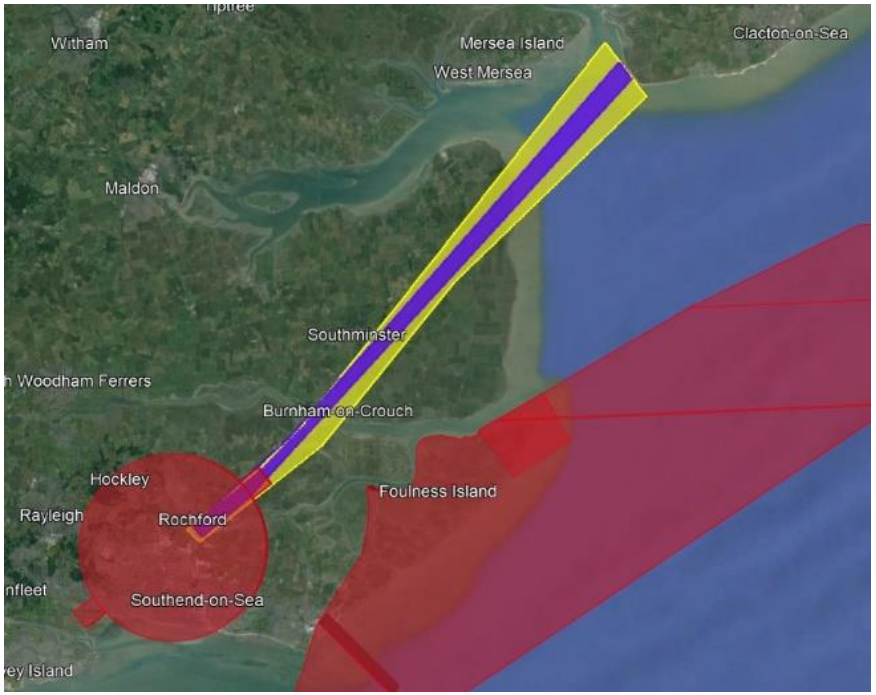
The 'Do-Minimum' Baseline is a refinement of the 'Do-Nothing' baseline and shows how the Airspace and Procedures would look if we introduced RNAV procedures to today's operation.

A swathe has been created where the highest concentration of tracks fall today and therefore a PBN route would sit within this area in order to replicate today's option with the assistance of the new technology.

This would mean more concise tracks over the ground and increased accuracy from the aircraft, with the addition of PBN.

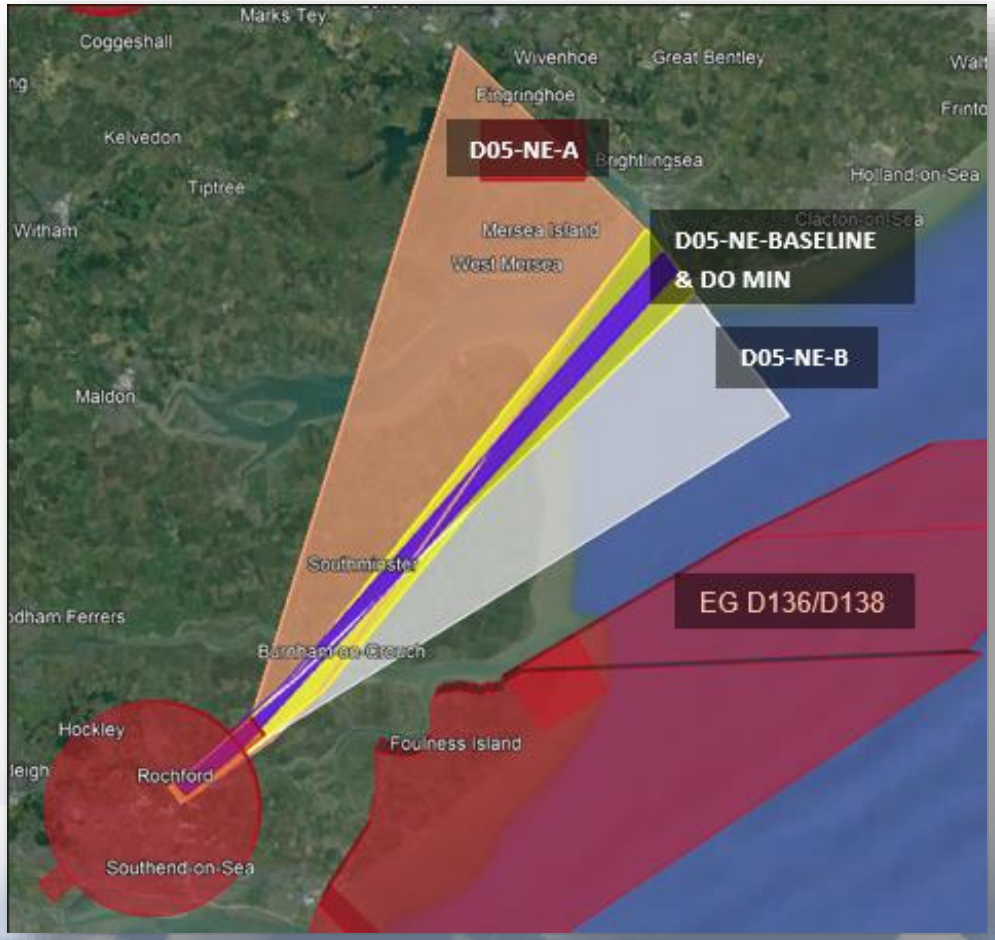
Departures Runway 05 – Northeast

Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)



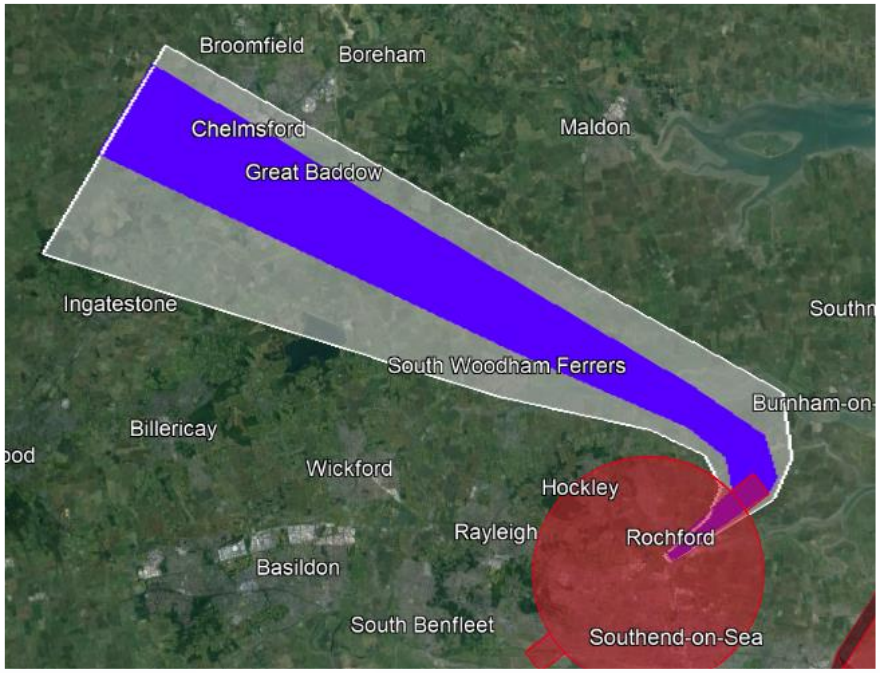
Departures Runway 05 – Northeast

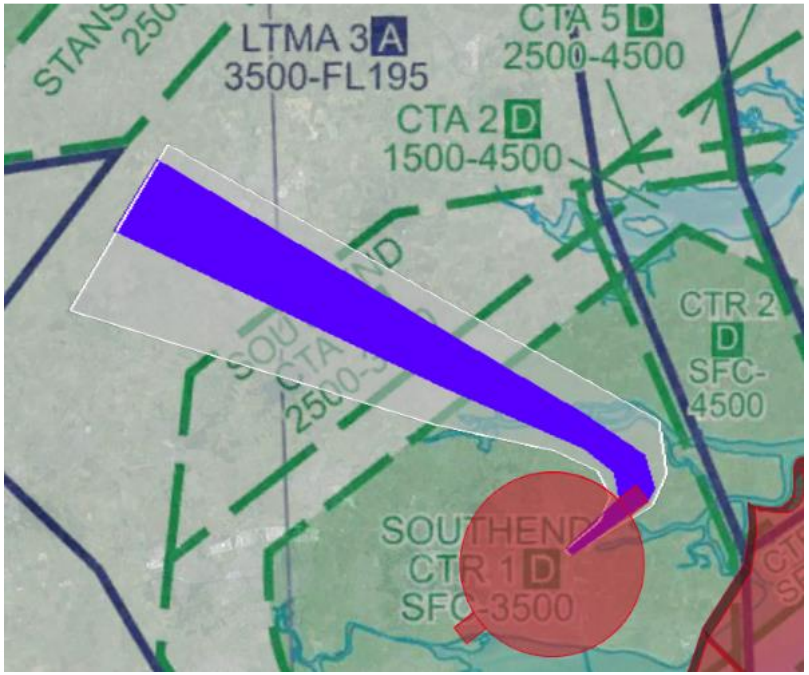
All Options



Departures Runway 05 – Northwest

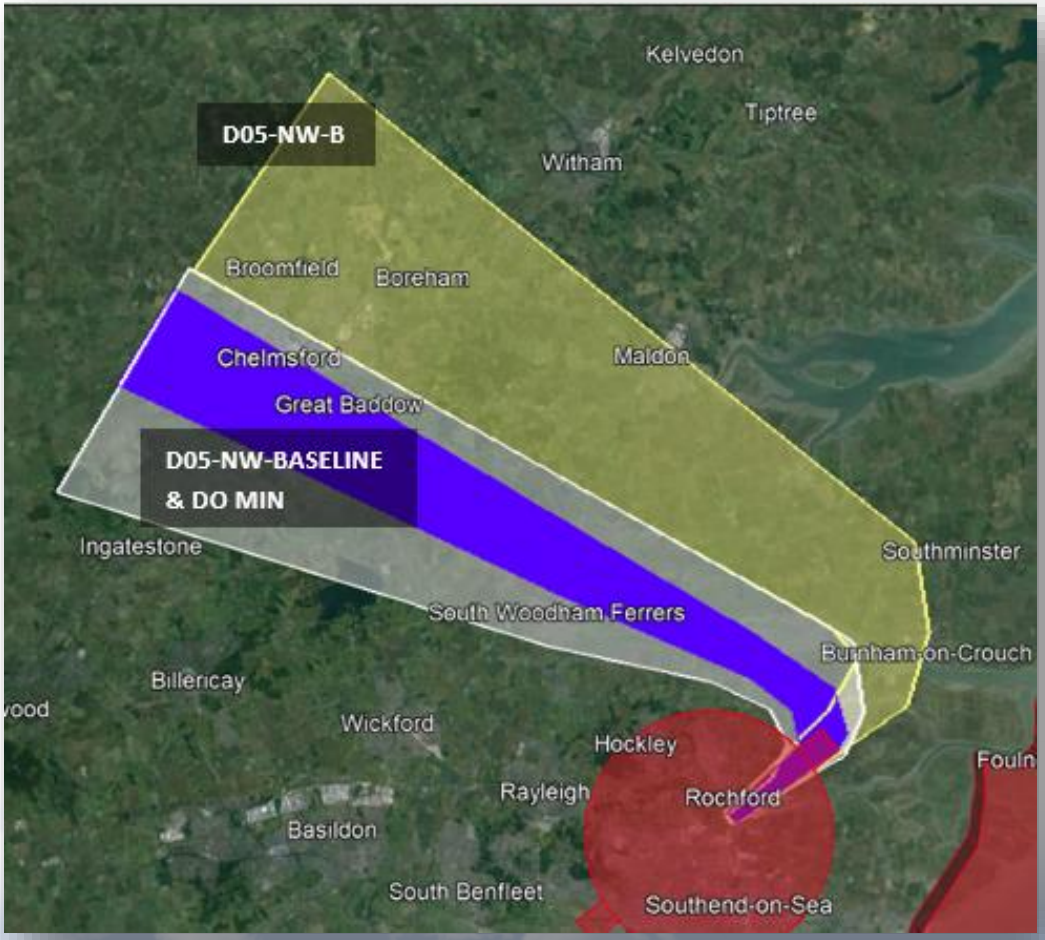
Do-Nothing Baseline (Grey Swathe) & Do-Minimum (Dark Blue Swathe)





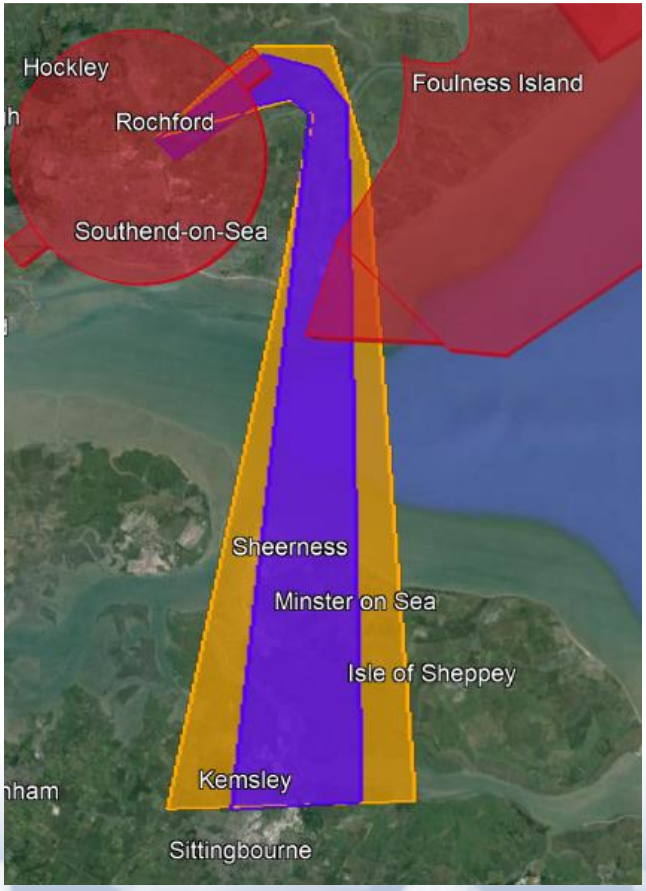
Departures Runway 05 – Northwest

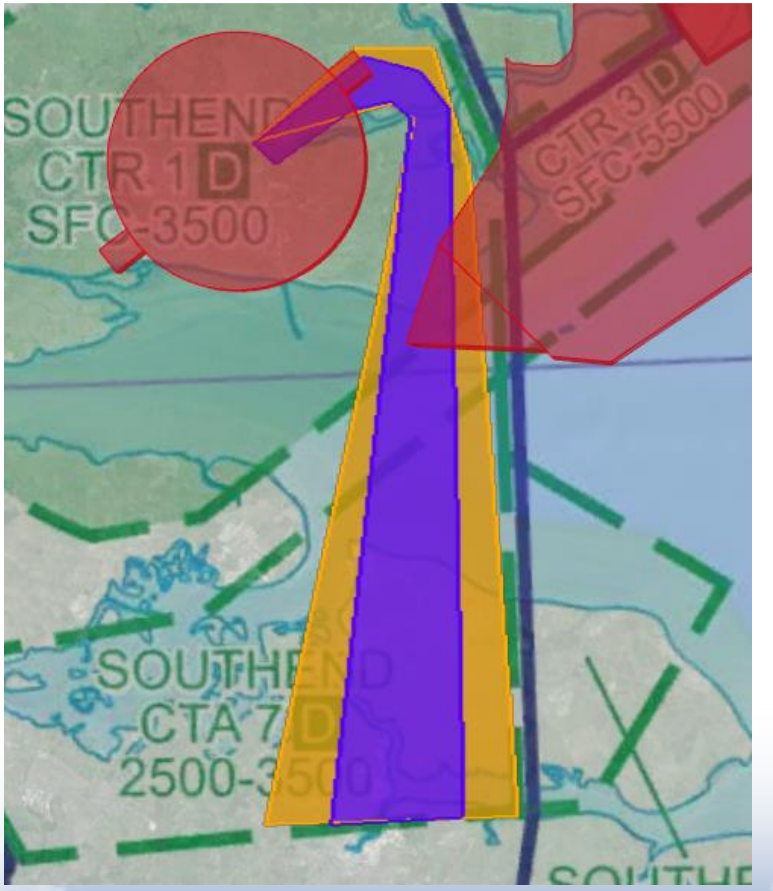
All Options



Departures Runway 05 – South/Southeast

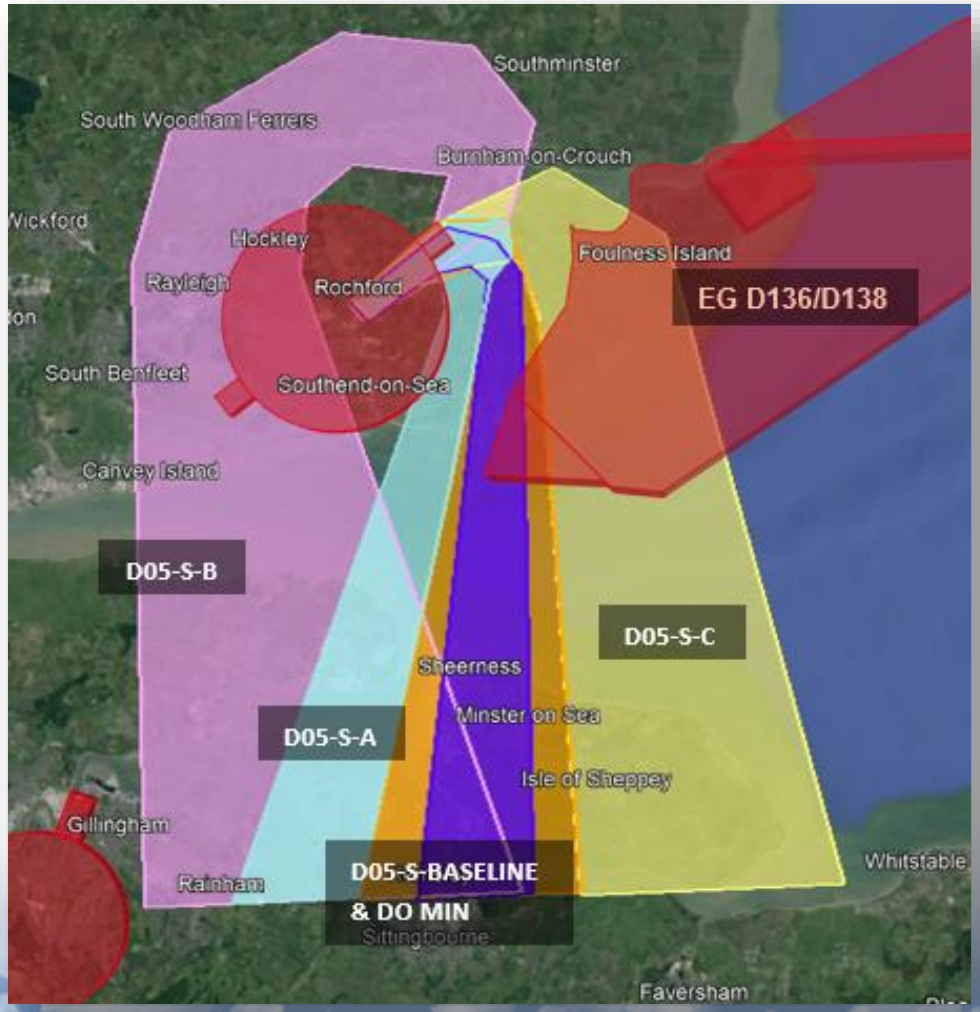
Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)





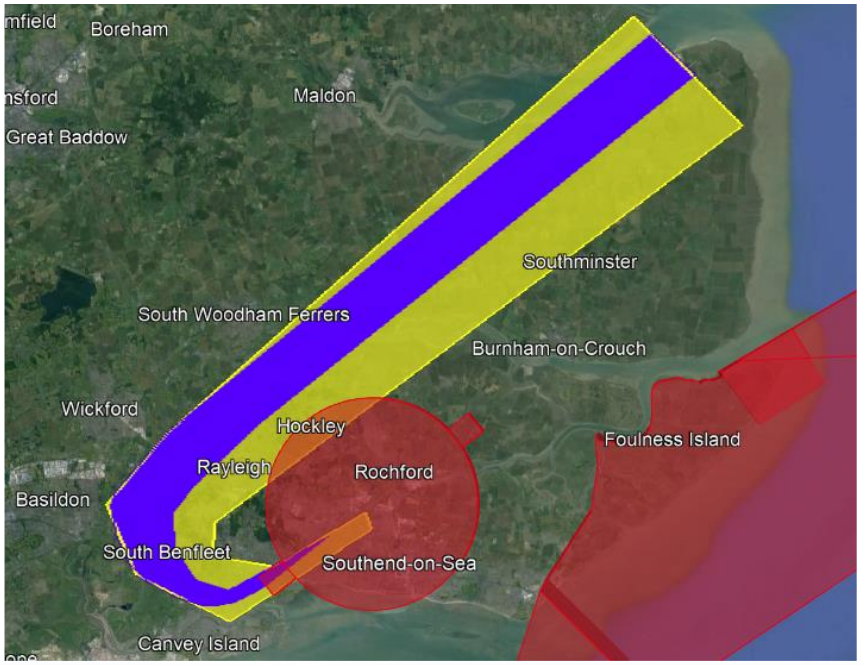
Departures Runway 05 – South/Southeast

All Options



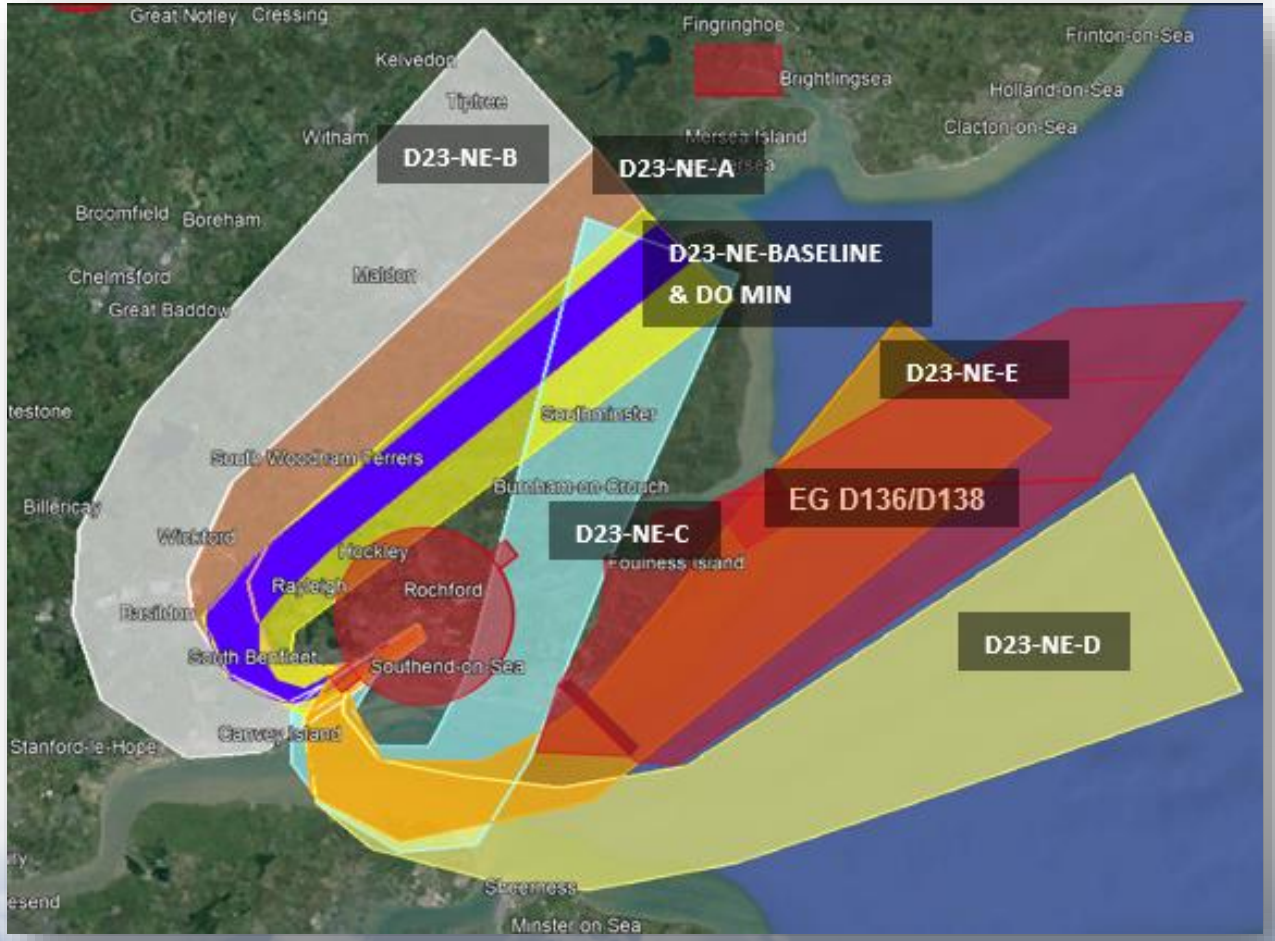
Departures Runway 23 – Northeast

Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)



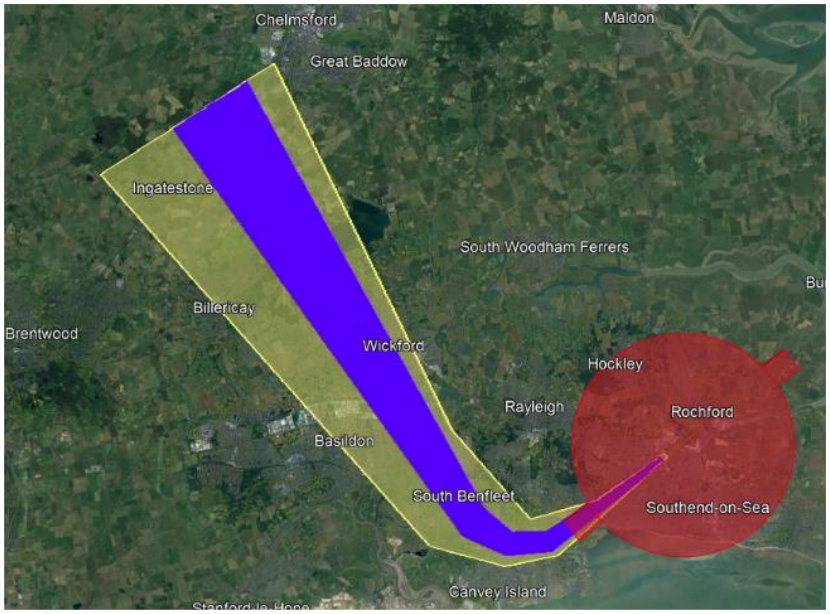
Departures Runway 23 – Northeast

All Options



Departures Runway 23 – Northwest

Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)

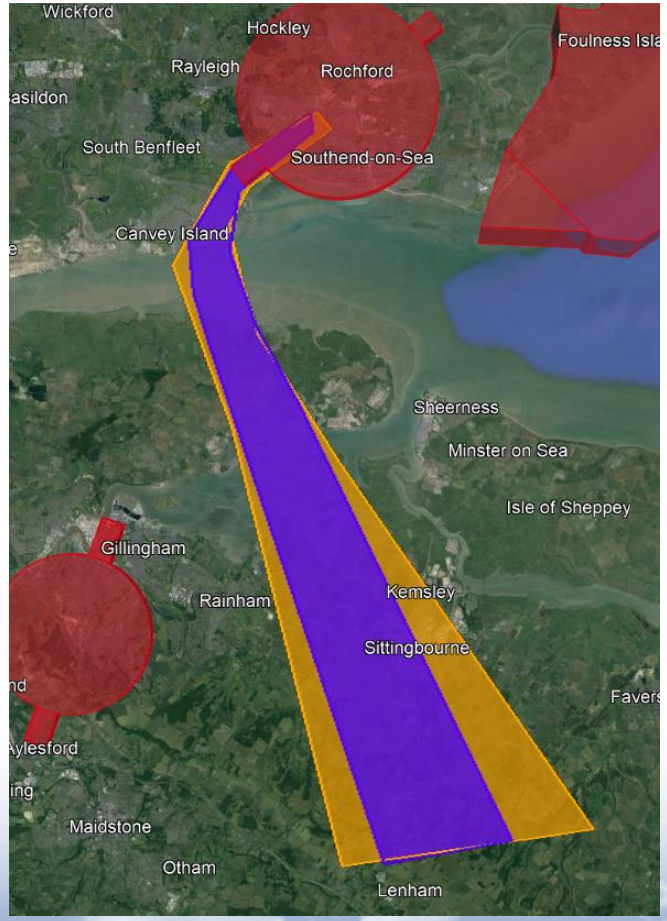


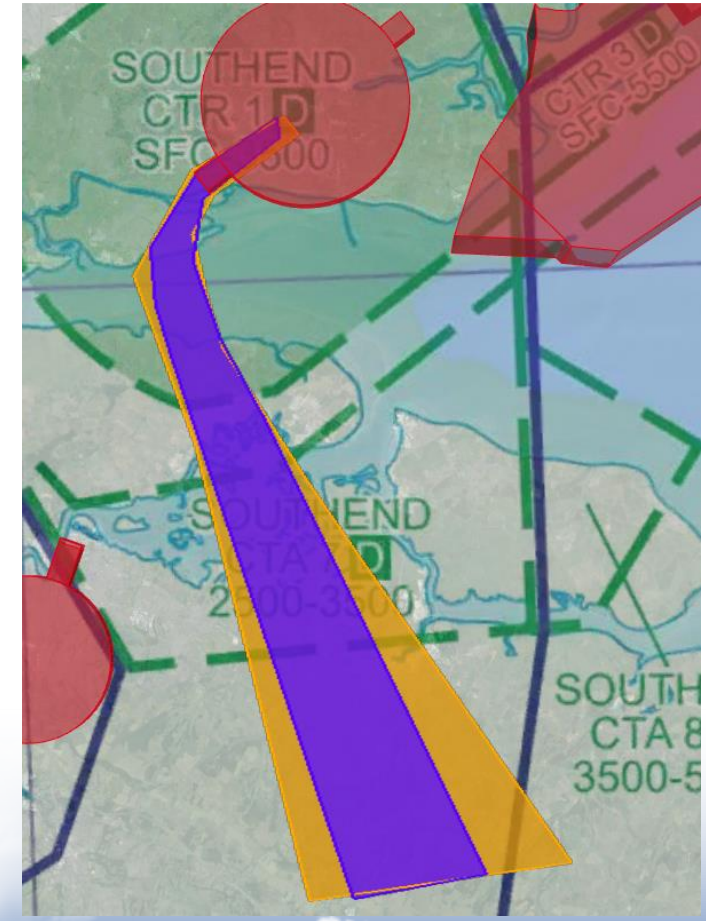
Departures Runway 23 – Northwest

All Options

Departures Runway 23 – South/Southeast

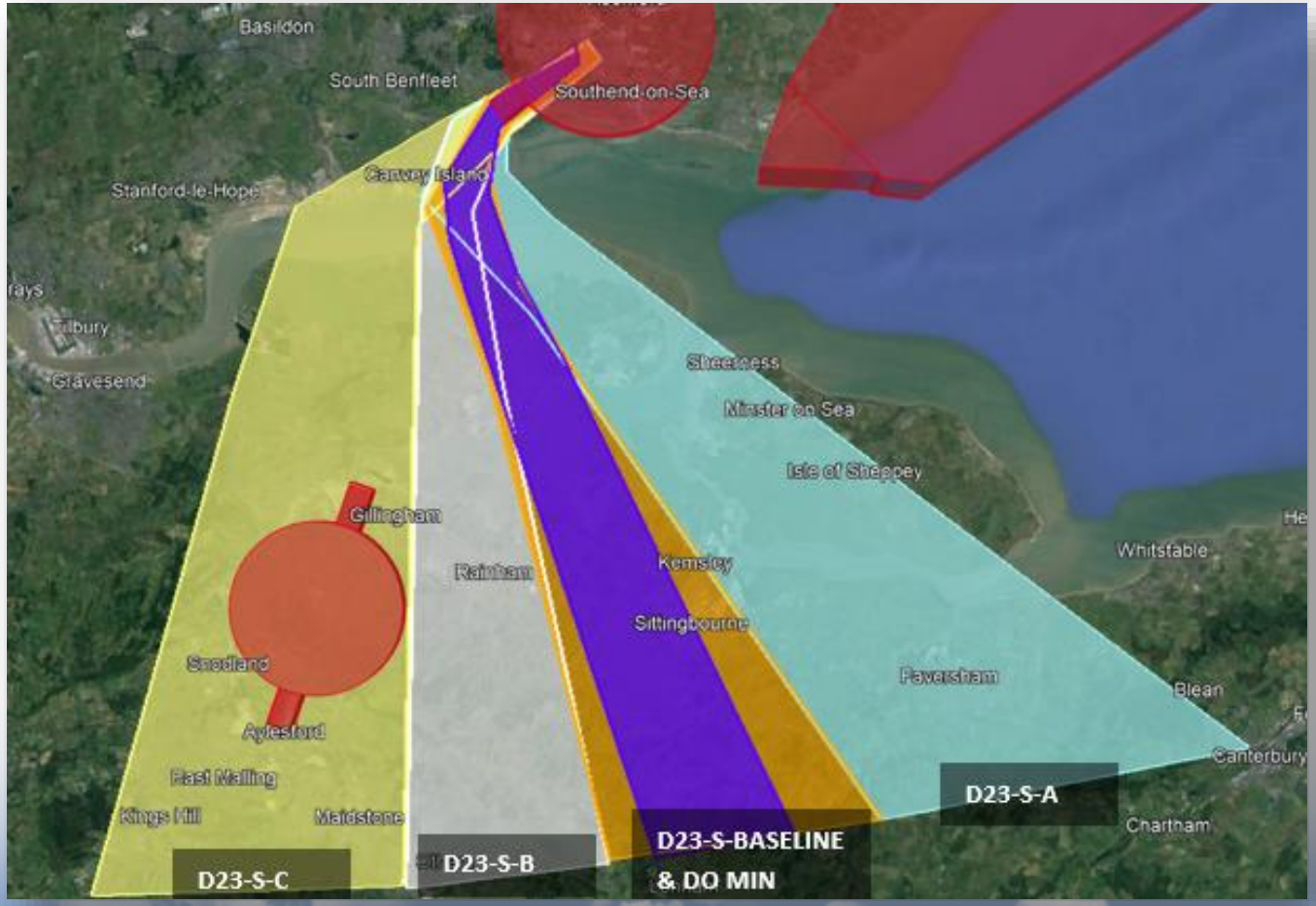
Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)





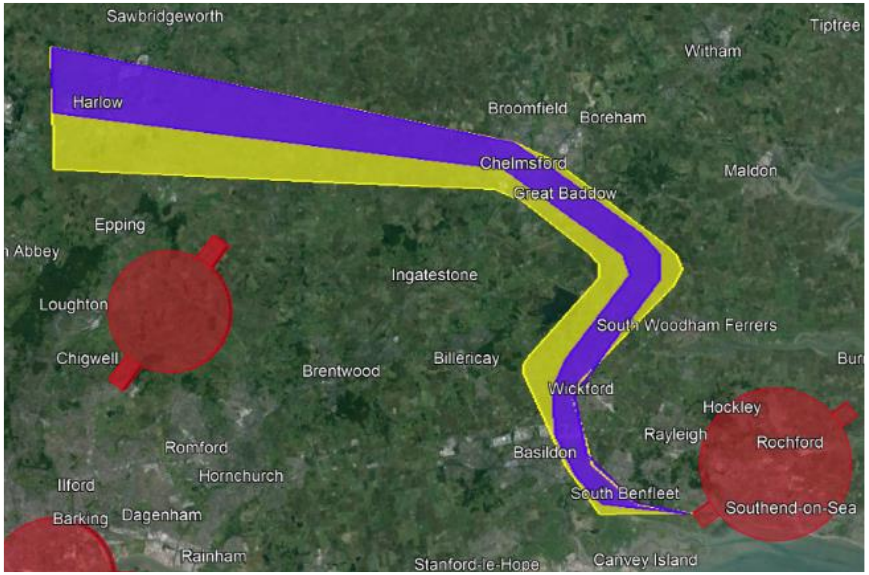
Departures Runway 23 – South/Southeast

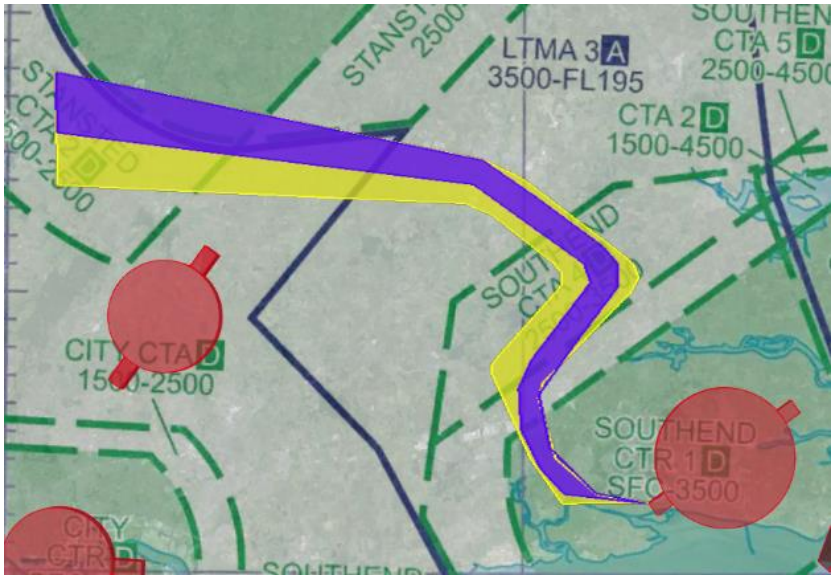
All Options



Arrivals Runway 05 - Northwest

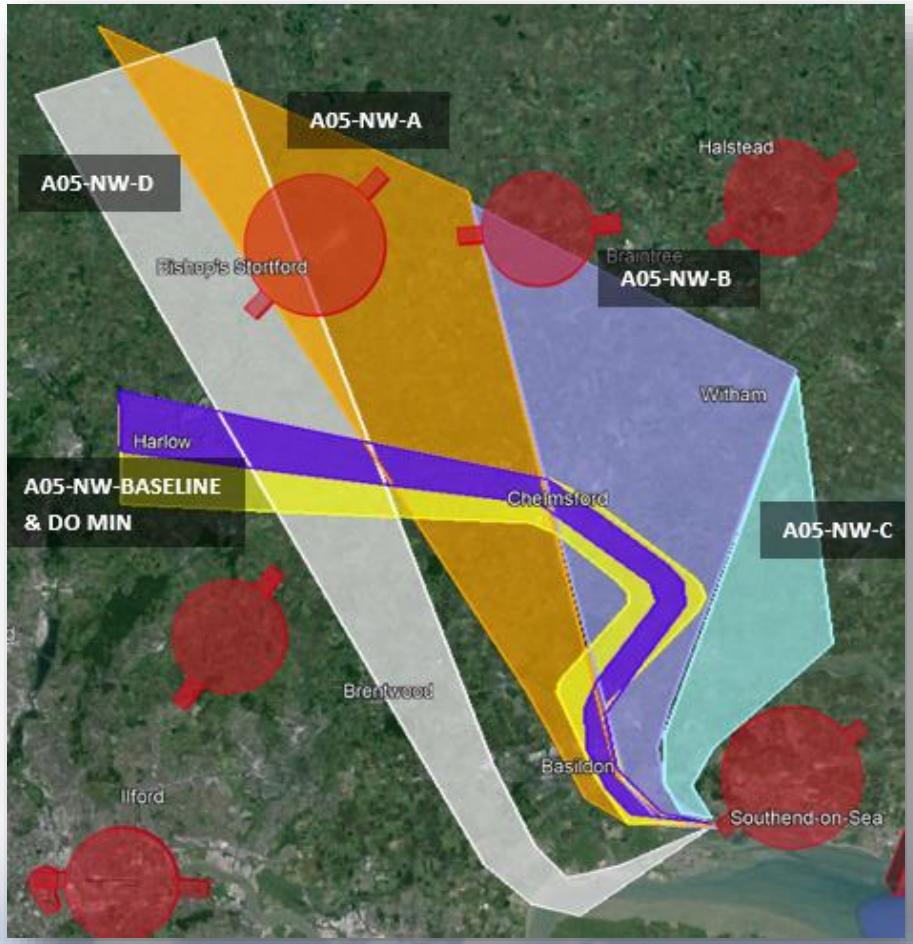
Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)





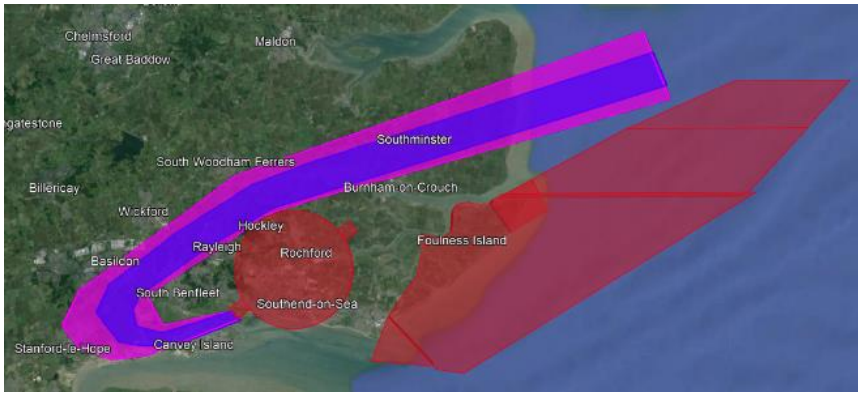
Arrivals Runway 05 - Northwest

All Options



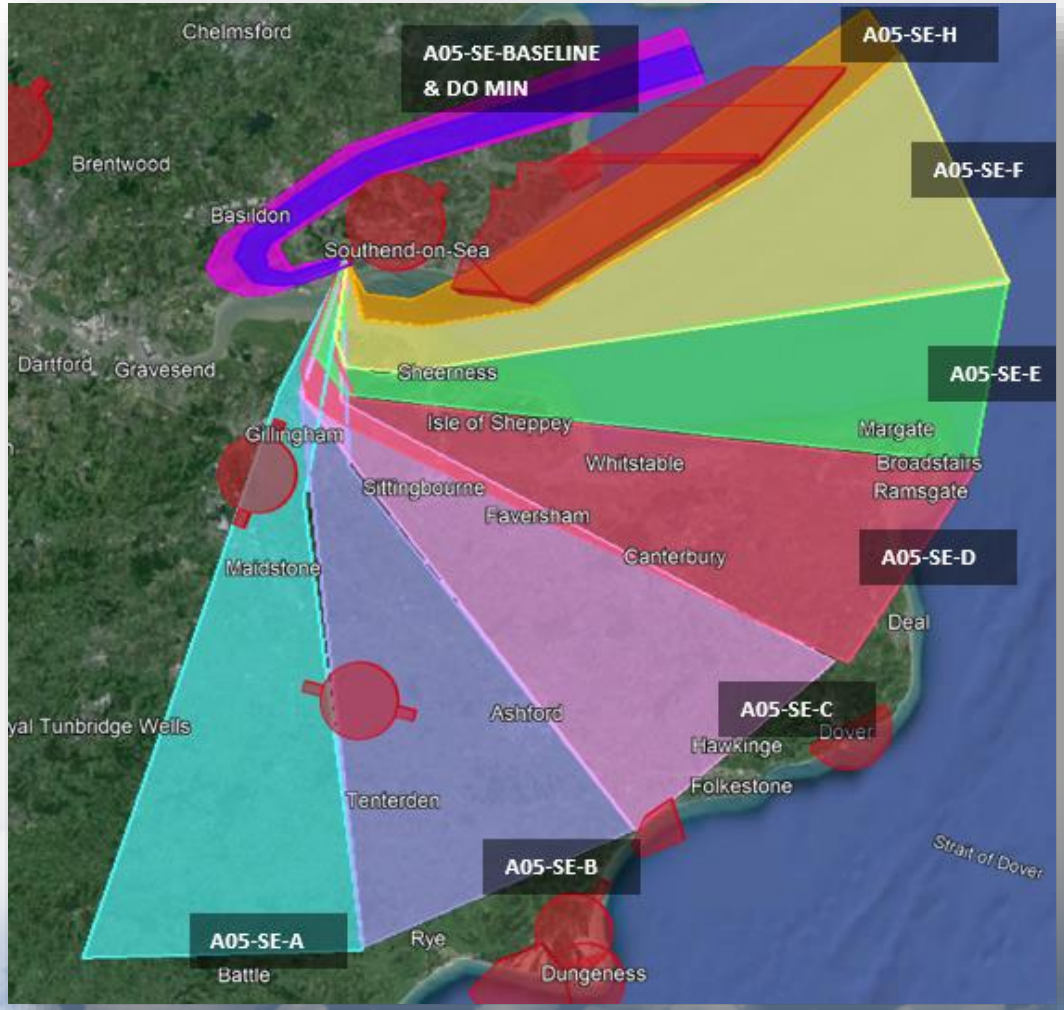
Arrivals Runway 05 – South and East

Do-Nothing Baseline (Purple Swathe) & Do-Minimum (Dark Blue Swathe)



Arrivals Runway 05 – South and East

All Options



Arrivals Runway 23 - Northwest

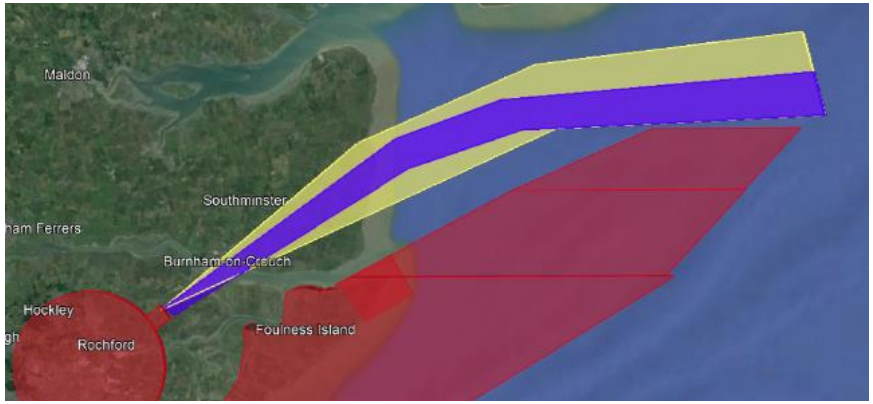
Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)

Arrivals Runway 23 - Northwest

All Options

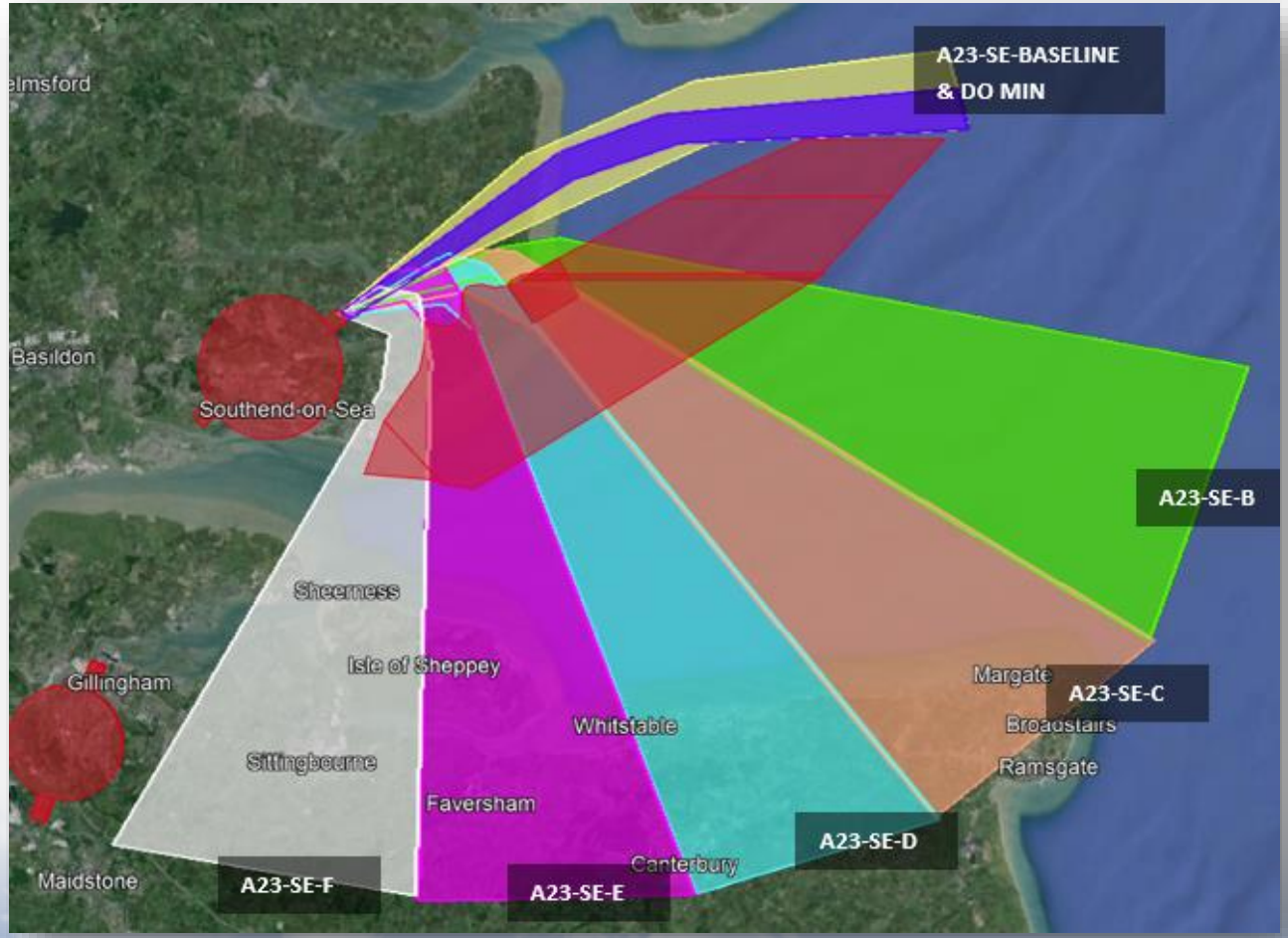
Arrivals Runway 23 – South and East

Do-Nothing Baseline (Yellow Swathe) & Do-Minimum (Dark Blue Swathe)



Arrivals Runway 23 - South and East

All Options



Design Principle Evaluation Criteria

The following slides show the old and new assessment criteria for each Design Principle, with an explanation of what's changed and how that has affected the outcome of the evaluation.

All of the options have been reassessed against the new criteria and in general for accuracy and consistency. The full Design Principle Evaluations can be found in the Supplementary Information Document – LSA Design Principle Evaluation contained in the information pack. They show the old criteria assessment and the new criteria assessment.

DP1 - Safety

DP#	Design Principle	Qualitative Assessment	
DP1	**Importance of Safety** – The airspace design and its operation must maintain or where possible, enhance current levels of safety.	Initial qualitative assessment to determine any potential safety concerns. A more detailed assessment will be conducted in Stage 2B in the IOA section 'Safety'.	
Old Criteria	**No safety concerns**	**Work needed to make safe**	**Unsafe**
New Criteria	**Fully Met:** No safety issues identified.	**Partially Met:** Issues identified that would require a more robust safety argument than today's operation.	**Not Met:** Issues identified that are unlikely to be overcome without prohibitively restrictive safety mitigations.

Explanation-

Minor changes to the criteria wording with no impact on the assessment outcome.

DP2 - Overflight

DP#	Design Principle		Qualitative Assessment
DP2	**Overflight** - The new procedures should not increase the number of people overflown by aircraft using the Airport and where possible options that provide a level of dispersion should also be considered.		High level qualitative assessment of people overflown, utilising population density maps and identifying new areas affected. A more detailed assessment will be conducted in Stage 2B in the IOA section 'Noise impact on health and quality of life'.
Old Criteria	**No different to today or less people overflown**	**Different not necessarily more**	**More AND different**
New Criteria	**Fully Met:** Limits or has the potential to reduce the number of people overflown.	**Partially Met:** Number of people overflown is broadly similar but could be different communities to today.	**Not Met:** Has the potential to increase the number of people overflown.

Explanation-

We are now able to show where an option may be an improvement from today's operation. Previously options were assessed as fully meeting the criteria if it was 'no different to today or less'. With the new criteria, options are assessed as fully meeting the criteria only if there is likely to be a reduction, and partially meeting the criteria if there is minimal change.

DP3 - Noise

DP#	Design Principle	Qualitative Assessment
DP3	**Noise Footprint** – The design should limit, and where practicable reduce, the impact of noise to stakeholders on the ground and where possible periods of built-in respite should be considered.	Initial high level qualitative assessment of noise impact to stakeholders on the ground (approximately 2000ft and below). A more detailed assessment will be conducted in Stage 2B in the IOA section 'Noise impact on health and quality of life'.

Old Criteria	**No different to today or less people overflown**	**Different not necessarily more**	**More AND different**
New Criteria	**Fully Met:** Limits or has the potential to reduce overall impacts of aircraft noise.	**Partially Met:** Impacts of aircraft noise likely to be broadly similar in terms of the number of people affected, new or different communities may be affected.	**Not Met:** Has the potential to increase the overall impacts of aircraft noise on local communities.

Explanation-

We are now able to show where an option may be an improvement from today's operation. Previously options were assessed as fully meeting the criteria if it was 'no different to today or less'. With the new criteria, options are assessed as fully meeting the criteria only if there is likely to be a reduction, and partially meeting the criteria if there is minimal change.

DP4 – Tranquillity

DP#	Design Principle	Qualitative Assessment	
DP4	**Tranquillity** - Where practical, route designs should limit effects upon sensitive areas. These may include cultural or historic assets, tranquil or rural areas, sites of care or education and AONB's.	Initial high level qualitative assessment. A more detailed assessment will be conducted in Stage 2B in the IOA sections 'Tranquillity' and 'Biodiversity'.	
Old Criteria	**No different to today or less people overflown**	**Different not necessarily more**	**More AND different**
New Criteria	**Fully Met:** Limits effects on Noise Sensitive Areas and does not result in any overflight of a AONB or a NP below 7000ft.	**Partially Met:** May result in overflight of a portion of an AONB or a NP, also may result in overflight of tranquil areas important to local communities such as reservoirs or parks.	**Not Met:** Results in direct and significant overflight of AONBs or NPs and/or various tranquil areas important to local communities.

Explanation-

Reference to today's operation has been removed from the assessment criteria as this is not relevant to the wording of the DP. The impact of the options on sites of tranquillity is individual to each option and assessed as such.

DP5 – Emissions and Air Quality

DP#	Design Principle	Qualitative Assessment	
DP5	**Emissions and Air Quality** – The proposed design should minimise CO2 emissions per flight.	Initial high level qualitative assessment based on track miles. A more detailed assessment will be conducted in Stage 2B in the IOA sections 'Greenhouse gas impact' and 'Fuel burn'.	
Old Criteria	**No different or less than today**	**Different and more**	**Extra track miles - significantly more than baseline**
New Criteria	**Fully Met:** Has potential to minimise CO2 emissions.	**Partially Met:** CO2 emissions likely to be the same or similar to today's operation.	**Not Met:** Has the potential to increase CO2 emissions.

Explanation-

We are now able to show where an option may be an improvement from today's operation. Previously options were assessed as fully meeting the criteria if it was 'no different to today or less'. With the new criteria, options are assessed as fully meeting the criteria only if there is likely to be a reduction, and partially meeting the criteria if there is minimal change.

DP6 – Operational Requirements

DP#	Design Principle		Qualitative Assessment
DP6	**Operational Requirements** – The new procedures should address the needs of most operators at LSA.		Initial high level qualitative assessment against current and forecast aerodrome users and whether the option will meet their operational requirements in terms of flyability, efficiency and service. This DP will also be assessed more thoroughly in Stage 3 when the options are refined to give more precise routes.
Old Criteria	**Fully**	**Partially**	**Not Met**
New Criteria	**Fully Met:** Meets the operational needs of almost all airport operators.	**Partially Met:** Meets the operational needs of most airport operators.	**Not Met:** Does not meet the operational needs of airport operators.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. There has been minimal changes to the assessment of the options.

DP7 – Airspace Dimensions

DP#	Design Principle		Qualitative Assessment
DP7	**Airspace Dimensions** – The volume and classification of controlled airspace required for LSA should be the minimum necessary to deliver an efficient airspace design, considering the needs of all airspace users.		High level qualitative assessment of the airspace required for each option. A more detailed assessment will be conducted in Stage 2B in the IOA section 'Access'. This DP will also be assessed more thoroughly in Stage 3 when the options are refined to give more precise routes.
Old Criteria	**Contained within existing controlled airspace**	**Would require more controlled airspace- but the minimum necessary**	**Significant new volume of controlled airspace required (minimum necessary)**
New Criteria	**Fully Met:** Allows for either a reduction in the volume of CAS required or does not require any additional CAS.	**Partially Met:** May require more controlled airspace but the minimum necessary.	**Not Met:** Significant additional volumes of CAS are required to contain the proposed option.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. There has been minimal changes to the assessment of the options.

DP8 – Airspace Complexity

DP#	Design Principle		Qualitative Assessment
DP8	**Airspace Complexity** – The airspace design should seek to reduce complexity and bottlenecks in controlled and uncontrolled airspace and contribute to a reduction in airspace infringements.		High level qualitative assessment on the airspace complexity of the swathe. Further assessment will be conducted in Stage 2B in the IOA section 'Capacity/resilience'.
Old Criteria	**No worse or different to today**	**Potential for more complexity**	**Marked increase in complexity**
New Criteria	**Fully Met:** Does not result in a complex CTA/CTR configuration with numerous different base levels likely to lead to inadvertent CAS penetrations.	**Partially Met:** Results in changes to the CAS configuration that may cause other aviators some minor challenges.	**Not Met:** Results in a highly complex CAS configuration.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. There has been minimal changes to the assessment of the options.

DP9 – Technical Requirements

DP#	Design Principle		Qualitative Assessment
DP9	**Technical Requirements** – The design shall be fully compliant with PANS-OPS and UK CAA criteria to Met the technical capability requirements of aircraft using the airport.		High level qualitative assessment of whether the options meet the technical requirements of all airspace users including aircraft types, equipment and performance. This DP will also be assessed more thoroughly in Stage 3 when the options are refine to give more precise routes.
Old Criteria	**Fully**	**Partially**	**Marked increase in complexity**
New Criteria	**Fully Met:** Meets the technical requirements of almost all airport operators.	**Partially Met:** Meets the technical requirements of most airport operators.	**Not Met:** Does not meet the technical requirements of airport operators.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. Previously this DP was not fully assessed as it was deemed all options would fully meet the criteria at this stage as there would be somewhere within each swathe with a compliant route. The options have now been reassessed.

DP10 - Systemisation

DP#	Design Principle	Qualitative Assessment	
DP10	**Systemisation** – The arrival transitions and departure procedures shall be deconflicted and integrate with the en-route network, as per the FASI(S) programme, and in the case of the arrival transitions shall integrate with the Instrument Approach Procedures (IAPs) reducing the requirement for tactical coordination.	Initial high level qualitative assessment of the systemisation potential of the swathe. Further assessment will be conducted in Stage 2B in the IOA section 'Capacity/resilience'.	
Old Criteria	**No current conflicts**	**Possibility of resolvable conflicts**	**Unable to be separated from other interdependent airports current procedures**
New Criteria	**Fully Met:** Integrates with the en-route network and is likely to reduce the need for tactical coordination and vectoring within the CTA/CTR.	**Partially Met:** Integrates with the en-route network but may not reduce the need for tactical coordination and vectoring within the CTA/CTR.	**Not Met:** Does not integrate with the en-route network and will not decrease the need for tactical coordination and vectoring within the CTA/CTR.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. There has been minimal changes to the assessment of the options.

DP11 – Operational Cost

DP#	Design Principle		Qualitative Assessment
DP11	**Operational Cost** – Provided it does not have an adverse impact of community disturbance, procedures should be designed to optimise fuel efficiency.		Assessed similarly to DP5 - Emissions and Air Quality, more track miles will incur more fuel cost. Initial high level qualitative assessment. Further assessment relating to this DP will be conducted in Stage 2B in the IOA section 'Fuel burn'.
Old Criteria	**No different or less than today**	**Different and more**	**Extra track miles, significantly more than baseline**
New Criteria	**Fully Met:** Fuel efficiency is optimal without an adverse impact on local communities.	**Partially Met:** Fuel efficiency is optimal however there is some impact on local communities.	**Not Met**: Fuel efficiency not optimised.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. There has been minimal changes to the assessment of the options.

DP12 – AMS Realisation

DP#	Design Principle	Qualitative Assessment	
DP12	**AMS Realisation** – This ACP must serve to further, and not conflict with, the realisation of the AMS.	Initial high level qualitative assessment on whether the swathe aligns with the strategic objectives of the AMS.	
Old Criteria	**Fully**	**Partially**	**Not Met**
New Criteria	**Fully Met:** Aligned with the AMS.	**Partially Met:** Partially aligned with the AMS.	**Not Met:** Not aligned AMS.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. Previously this DP was not fully assessed as it was deemed all options would fully meet the criteria at this stage as there would be somewhere within each swathe with a compliant route. The options have now been reassessed against the AMS indicators.

DP13 - PBN

DP#	Design Principle		Qualitative Assessment
DP13	**PBN** – The new procedures should capitalise on as many of the potential benefits of PBN implementation as are practicable.		Initial high level qualitative assessment on whether the options for routes will utilise PBN and its benefits, e.g. simplifying route integration, more direct routes and less track mileage.
Old Criteria	**Fully**	**Partially**	**Not Met**
New Criteria	**Fully Met:** Fully compliant with the latest navigational standards.	**Partially Met:** Some PBN benefits utilised but potential to not be fully compliant.	**Not Met:** PBN not utilised.

Explanation-

The assessment criteria has been rewritten to be more representative of the DP wording. Previously this DP was not fully assessed as it was deemed all options would fully meet the criteria at this stage as there would be somewhere within each swathe with a compliant route. The options have now been reassessed.

Design Principle Evaluation Criteria Change Examples

The following slides show a few worked examples to highlight the results of the changes. This is not an exhaustive list, the full assessment and its results can be found in the Supplementary Information Document – LSA Design Principle Evaluation .

They include the qualitative assessment of each DP and then two columns of RAG scores. The first shows the RAG score following the initial round of engagement and feedback in 2022. The second shows the RAG score following the recent reassessment of all of the options following on from the changes to the assessment criteria.

Departure Option D05-S-A

D05-S-A	Design Principle	Qualitative Assessment	Post Stakeholder Feedback 2022	New Criteria Assessment 2024
1	**Importance of Safety**	Assessed as fully met as no safety issues identified.		
2	**Overflight**	Assessed as partially met as the number of people overflown are broadly similar but new or different communities may be affected.		
3	**Noise Footprint**	Assessed as partially met as the impact of aircraft noise may be similar in terms of the number of people affected, but new or different communities may be affected.		
4	**Tranquillity**	Assessed as partially met due to the potential overflight of some sensitive areas, such as SPAs, SACs, SSSIs or Ramsar sites. (Although the trajectory of this option will eventually overfly the Kent Downs AONB, the aircraft will be above 7000ft, so it has not been considered.)		
5	**Emissions and Air Quality**	Assessed as partially met as emissions will be the same or similar as today.		
6	**Operational Requirements**	Assessed as only being partially met due to the implications on certain operators and aircraft type that may be unable or reluctant to accept the very tight right turn out to remain clear of the DA.		
7	**Airspace Dimensions**	Assessed as fully met as no new volume of controlled airspace would be required.		
8	**Airspace Complexity**	Assessed as fully met as it should not result in a complex airspace configuration with numerous different base levels.		
9	**Technical Requirements**	Assessed as being fully met due to the design being fully compliant with PANS-OPS and UK CAA criteria meeting the technical capability requirements of all aircraft using the airport.		
10	**Systemisation**	Assessed as partially met as integrates with the en-route network but may not reduce the need for tactical coordination. Possible conflictions with LSA arrival swathes A05-SE-F and A05-SE-E. Possible confliction with London City Airport's procedures.		
11	**Operational Cost**	Assessed as partially met as fuel efficiency is optimal however there may be some impact on local communities.		
12	**AMS Realisation**	Assessed as partially met as does not meet all of the environmental sustainability and simplification objectives.		
13	**PBN**	Assessed as fully met as this design shall capitalise on the benefits of PBN, enhancing navigational adherence and introducing a more efficient use of the airspace.		

Departure Option D23-NW-B

D23-NW-B	Design Principle	Qualitative Assessment	Post Stakeholder Feedback 2022	New Criteria Assessment 2024
1	**Importance of Safety**	Assessed as fully met as no safety issues identified.		
2	**Overflight**	Assessed as fully met as the number of people overflown has the potential to be reduced.		
3	**Noise Footprint**	Assessed as fully met as the impact of aircraft noise has the potential to be reduced.		
4	**Tranquillity**	Assessed as partially met due to the potential overflight of some sensitive areas, such as SPAs, SACs, SSSIs or Ramsar sites.		
5	**Emissions and Air Quality**	Assessed as partially met as emissions will be the same or similar as today.		
6	**Operational Requirements**	Assessed as fully met as the procedures meet the operational needs of almost all airport operators.		
7	**Airspace Dimensions**	Assessed as partially met as an increase in controlled airspace may be required.		
8	**Airspace Complexity**	Assessed as partially met as may result in changes to the controlled airspace configuration.		
9	**Technical Requirements**	Assessed as being fully met due to the design being fully compliant with PANS-OPS and UK CAA criteria meeting the technical capability requirements of all aircraft using the airport.		
10	**Systemisation**	Assessed as not met as does not integrate with the en-route network and will not reduce the need for tactical coordination. Closer proximity to LTMA traffic, increased potential for conflict with both current and future London Stansted departures to the South, this could see an increased possibility for step climbs.		
11	**Operational Cost**	Assessed as fully met as fuel efficiency is optimal without an adverse impact on local communities.		
12	**AMS Realisation**	Assessed as partially met as does not meet the simplification or reducing complexity objectives.		
13	**PBN**	Assessed as fully met as this design shall capitalise on the benefits of PBN, enhancing navigational adherence and introducing a more efficient use of the airspace.		

Arrival Option A05-SE-B

A05-SE-B	Design Principle	Qualitative Assessment	Post Stakeholder Feedback 2022	New Criteria Assessment 2024
1	**Importance of Safety**	Assessed as fully met as no safety issues identified.		
2	**Overflight**	Assessed as partially met as the number of people overflown are broadly similar but new or different communities may be affected		
3	**Noise Footprint**	Assessed as partially met as the impact of aircraft noise may be similar in terms of the number of people affected, but new or different communities may be affected.		
4	**Tranquillity**	Assessed as not met due to significant overflight of Kent Downs AONB and overflight of sensitive areas, such as SPAs, SACs, SSSIs or Ramsar sites.		
5	**Emissions and Air Quality**	Assessed as fully met as the more direct route has the potential to reduce CO2 emissions.		
6	**Operational Requirements**	Assessed as fully met as the procedures meet the operational needs of almost all airport operators.		
7	**Airspace Dimensions**	Assessed as fully met as no new volume of controlled airspace would be required.		
8	**Airspace Complexity**	Assessed as fully met as it should not result in a complex airspace configuration with numerous different base levels.		
9	**Technical Requirements**	Assessed as being fully met due to the design being fully compliant with PANS-OPS and UK CAA criteria meeting the technical capability requirements of all aircraft using the airport.		
10	**Systemisation**	Assessed as partially met as integrates with the en-route network but may not reduce the need for tactical coordination. Potential interaction with London City traffic.		
11	**Operational Cost**	Assessed as fully met as fuel efficiency is optimal without an adverse impact on local communities.		
12	**AMS Realisation**	Assessed as partially met as does not achieve the reducing complexity objectives. Additionally, does not improve the environmental sustainability objectives.		
13	**PBN**	Assessed as fully met as this design shall capitalise on the benefits of PBN, enhancing navigational adherence and introducing a more efficient use of the airspace.		

Feedback

Please follow the link in the email to access the feedback survey.

You will be shown the full Design Principle Evaluations for the baseline options for each departure and arrival direction and asked for your comments.

At the end of the survey there is a free text box to comment on the New Design Principle Evaluation Criteria if you wish. The Supplementary Information Document – LSA Design Principle Evaluation, shows the Design Principle Evaluations for all of the options and the changes for information purposes, you have the option to provide comment on this in the survey.

If you would like to attend the online information and feedback session, please follow the instructions in the email.

Thank you for your time.