

Network Improvements on the UK Dover (DVR) Interface

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NATS

Gateway Documentation:
Stage 3 Full Options Appraisal Document
ACP-2025-006

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Ref no	Name and description	Links
1.	CAA Airspace Change Portal	Link
2.	CAP1616f: Guidance on Airspace Change Process for Permanent Airspace Change Proposals	Link
3.	ACP-2024-048: New Waypoint on London FIR / UIR boundary near RINTI	Link
4.	Regulation (EC) No 261/2004	Link

1. Introduction

1.1 Background

- 1.1.1 This document presents the Stage 3 Full Options Appraisal for ACP-2025-006, sponsored by NATS and developed in accordance with the Civil Aviation Authority's CAP1616 Airspace Change Process. This document aims to provide adequate evidence to satisfy Stage 3 Consult / Engage Gateway. The change seeks to improve connectivity between the UK air traffic service (ATS) route network and adjacent Flight Information Regions (FIRs) and Upper Flight Information Regions (UIRs) by introducing new and revised ATS routes, waypoints and coordination points (COPs).
- 1.1.2 For previous stages of the airspace change process, please see the CAA airspace change portal ^(Ref 1).
- 1.1.3 Subject Matter Expert (SME) design work, stakeholder engagement and option evaluations, resulted in a sole design option, referred to as 'Option 1: 3 COPs'.
- 1.1.4 This document is a technical document providing detailed analysis of the potential impacts of the selected option compared to the Baseline ("Do Nothing"), using a standard format stipulated by the CAA.

2. Design Options Appraisal

2.1 Introduction

- 2.1.1 The baseline, and the design option, will be assessed based on key analyses described in CAP1616f ^(Ref 2) Options Appraisal section.
- 2.1.2 During Stage 2, NATS as the sponsor stated that in Stage 3 *“following more detailed design work, a more quantitative appraisal will be provided as appropriate.”* However, it will not always be proportionate to provide quantitative and monetised impacts. Quantitative assessments have been provided where possible, but where not, detailed qualitative assessments have been provided.

2.2 Methodology

- 2.2.1 Throughout this document, the following apply:
- Traffic forecasts are based on the NATS November 2025 long-term forecast.
 - Any quoted forecast figure (such as traffic, fuel burn, CO₂) are based on NATS' lower estimates. In all instances, NATS complete a lower, middle, and higher estimate considering various changes in the micro and macro environment. The lower estimate is the most pessimistic. Therefore, there is potential for the benefits to be much greater than those reported in this consultation.
 - The reference year was 2025 (the most recent full year) in which 234,088 flights routed via KONAN, or VABIK, or RINTI / UTFAV¹. These flights generated ~3,900 unique routes in the region 200nm preceding and proceeding the London FIR / UIR COP. This is too many route permutations to model in a reasonable time for this analysis. Instead, the top 543 routes were modelled, which cover 92.57% of all 2025 traffic, and 95% of the annual fuel / Carbon dioxide equivalent (CO₂e²) from traffic through these COPs.
 - A net present value (NPV)³, year-on-year 3.5% discount is applied from 2023 cost base.
 - Due to rounding, the totals may not match the sum of the individuals.
 - Overflights are all non-UK arrivals or departures.
- 2.2.2 The methodology of specific metrics is explained within the relevant section of the tables.

2.3 Traffic Forecast

- 2.3.1 Table 1 shows the traffic forecast which has been used throughout this document. This has been updated, from any previously provided forecast, to use the most credible and up-to-date data that is available from 2025. The forecast is based on the 2025 EUROCONTROL EBBU traffic data (actuals) and grown using NATS November 2025 Base Forecast⁴.
- 2.3.2 Other than London Gatwick Arrivals (see Table 1), NATS have not provided a traffic forecast for traffic heading westbound via KONAN as the numbers are very small and any growth would be within the margin of error of a forecast.
- 2.3.3 This change will have no impact on the traffic volume or distribution via RAPIX, and any changes to RAPIX are of negligible impact and introduced only as an enabler for changes to

¹ ACP-2024-048 ^(Ref 3) brought in a new COP (UTFAV) in May 2025. Whilst RINTI remains, most of this traffic now operate via UTFAV; therefore, the traffic distribution changed within the reference year.

² CO₂e, or carbon dioxide equivalent, is a unit of measure which translates all greenhouse gases into the equivalent amount of carbon dioxide need to generate the same warming effect.

³ NPV is a calculation used to work out the value of investment based on current terms, therefore taking into account inflation from future values.

⁴ NATS long-term traffic forecasts are updated regularly to incorporate the latest available data. At the time of writing, NATS November 2025 Base Forecast was the most up-to-date projection and represents the most likely traffic growth scenario, based on NATS' market knowledge and economic forecasts.

KONAN / VABIK. As a result, no impact assessment is being completed on RAPIX. Accordingly, providing a detailed traffic forecast is disproportionate in terms of resource versus benefit

Table 1 - Forecasted Traffic Figures for 2028 and 2037

Traffic Flow	2028	2037	Growth (%)
Bournemouth Departures	829	829	0.0
Farnborough Departures	1,100	1,132	2.9
London Biggin Hill Departures	2,569	2,754	7.2
London City Departures	7,569	8,249	9.0
London Gatwick Arrivals	154	163	5.8
London Gatwick Departures	31,345	32,449	3.5
London Heathrow Departures	71,525	74,930	4.8
London Luton Departures	13,289	13,769	3.6
London Southend Departures	192	192	0.0
London Stansted Departures	34,777	36,120	3.9
RAF Northolt Departures	457	465	1.8
Other UK Departures	17,718	18,362	3.6
Overflights	41,701	51,664	23.9
Total	223,224	241,077	8.0

- 2.3.4 The relatively small, forecasted traffic growth is proportional to how busy the airspace already is, and the limited opportunity to growth due to airspace capacity. Having said that, an 8.0% increase in traffic, in an already complex airspace, will create further difficulties.
- 2.3.5 For the NATS November 2025 forecast no additional traffic from LTMA airports with enhanced capacity from current under consideration development consent orders is assumed. This could lead to an understating of the traffic through this region if approvals are later granted.

2.4 Baseline ('Do Nothing') Option – Full Options Appraisal

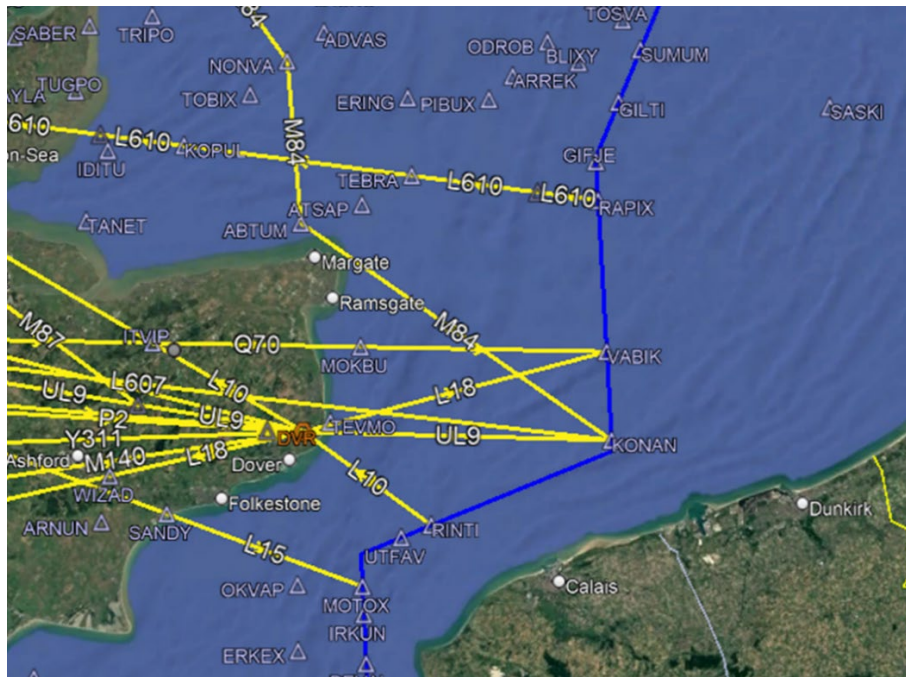


Figure 1 - Baseline: Do Nothing. Background: Google Earth Pro

- 2.4.1 The option considered as the baseline ('do nothing') option is if no airspace change was to take place. However, it considers the changes to airspace demand based on forecasted traffic for the 10-years following the year of implementation (2028-2037).
- 2.4.2 This option would involve keeping the current airspace design and the boundary waypoints KONAN and VABIK. There are three main traffic groups currently using either VABIK or KONAN, these are: London TMA departures; Brussels TMA arrivals and network overflights.
- 2.4.3 Traffic is positioned across the FIR / UIR boundary such that most Brussels TMA traffic routes via VABIK, and London TMA departures / overflights route via KONAN. Additionally, data demonstrated that there is uneven distribution of traffic in the current route structure with 93% of the traffic routing via KONAN and only 7% of traffic routing via VABIK (as per Stage 2 Develop and Assess Document) ^(Ref 1).
- 2.4.4 "Do Nothing" has not been deemed a viable option as it does not provide the required capacity improvements. However, the option is included in this document for comparison purposes.

Table 2 - Baseline ('Do Nothing')

Group	Impact	Level of Analysis
Communities	Noise impact on health and quality of life	Qualitative
There will be no changes to traffic below 7,000ft, therefore, no change to noise impacts.		
Communities	Air quality	Qualitative
There will be no changes to traffic below 1,000ft, therefore, no changes to air quality impacts.		
Wider society	Greenhouse gas impact	Quantified and monetised

There will be no change to airspace design, however, increased traffic demand (as expected by 10-years post-implementation) would result in non-optimal flight levels or longer track mileage, leading to increase in greenhouse gas emissions.

CO₂e is calculated by multiplying the fuel burn estimation by a factor of 3.1783652. Greenhouse gases are a cocktail of atmospheric gases, including water, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃) and synthetic fluorinated gases. Each omitted in different quantities and impacting global warming in different ways. The greenhouse gas figure is provided to allow stakeholders to compare the design option against the baseline. CO₂e is considered a good proxy to total greenhouse gas emissions and can be used for comparison purposes. Calculating each gas would be resource consuming and disproportionate to any additional benefit it would provide stakeholders.

Table 3 depicts the overall impact of this proposal for the year of implementation (2028) and 10-years post-implementation (2037). Table 4 gives the breakdown of these totals; given the significance of LTMA traffic to this change (approximately 70% of the traffic) these airports have also been split out.

Other than London Gatwick Arrivals (see Table 1), NATS have not provided a traffic forecast for traffic heading westbound via KONAN as: this traffic originates from outside the UK and NATS do not have access to these airports' forecasts; these are predominantly low-level private aircraft; and traffic figures are so low (~70 in 2025 based on NATS radar data) that changes would be absorbed with margin of error for any generic forecast which could be applied. Therefore, this traffic is assumed to stay as per 2025. Therefore, it is expected to be no change compared to today in terms of greenhouse gas emissions.

Table 3 - Total Greenhouse Gas Impacts of Option

	Approximate CO₂e (t) 2028	Approximate CO₂e (t) 2037
Traded	790,075	812,230
Non-traded	1,553,207	1,710,647
Total	2,343,282	2,522,877

Group	Impact	Level of Analysis	
Table 4 – Greenhouse Gas Impacts 2028 and 2037			
Airport	CO ₂ e (t) 2028	CO ₂ e (t) 2037	Change (%)
Bournemouth Departures	20,578.5	20,578.5	0.0
Farnborough Departures	3,668.3	3,773.5	2.9
London Biggin Hill Departures	5,699.8	6,110.9	7.2
London City Departures	38,291.8	41,733.8	9.0
London Gatwick Arrivals	503.9	533.2	5.8
London Gatwick Departures	282,632.1	292,581.0	3.5
London Heathrow Departures	1,060,014.5	1,110,472.5	4.8
London Luton Departures	128,725.1	133,378.5	3.6
London Southend Departures	829.4	829.4	0.0
London Stansted Departures	267,776.3	278,121.4	3.9
RAF Northolt Departures	1,084.3	1,102.6	1.7
Other UK Departures	134,603.7	139,499.6	3.6
Overflights	398,873.8	494,161.7	23.9
Total	2,343,281.5	2,522,876.8	7.7
Between 2028 and 2036, the baseline CO ₂ e is expected to increase by 7.7%. This is very similar to the traffic forecast growth (8.0%), as per Table 1, and represents limited forecasted traffic growth, rather than aircraft efficiencies.			
Monetisation of CO ₂ e is presented within the Option 1: 3 COPs – Full Option Appraisal (Table 6).			
Wider society	Tranquillity	Qualitative	
There will be no changes to traffic below 7,000ft, therefore, no changes to tranquillity impacts.			
Wider society	Biodiversity	Qualitative	
There will be no changes to traffic below 7,000ft, therefore, no changes to biodiversity impacts.			
Wider society	Capacity / resilience	Qualitative	
Capacity Currently, Sector 15 (S15) ⁵ is responsible for zero airborne delay, however, this is due to capacity being regularly managed by the application of ground-based delay measures such as Minimum Departure Intervals (MDIs) (either by S15 or previous sector(s)). The cause and effect of ground-based delays and S15 capacity constraints are highly complex ⁶ to measure and ascertain. Therefore, impact of delay has not be quantified. However, within the baseline there will be no change to airspace design, although there will be an increase in traffic by 10-years post-implementation. This would result in increased ATCO workload in proximity to KONAN / VABIK, and to mitigate this, there would likely be an increase in ground delay. In the short-term this results in delays for passengers and cargo, missed onward travel, events and so forth. In the long term, aircraft operators may choose to fly different routes to avoid the bottleneck.			

⁵ For ATC purposes, UK airspace is divided into sectors; the DVR interface lies within Sector 15 (S15).

⁶ Complexity includes identifying which delay was due to airspace capacity in S15 (rather than weather and such); how much delay in a previous sector stop delay being applied by S15; or how much delay would have been applied if aircraft were not tactically vectored.

Group	Impact	Level of Analysis
<u>Resilience</u> Resilience is based on ATC's ability to manage unexpected demand in air traffic, due to events such as runway closures or weather. Where a sector is at capacity, and ATCO workload high, resilience is low as they have limited workload capacity to deal with the additional workload of unplanned events. Therefore, in these situations, delays are more likely. As traffic levels increase to 2037 forecasted levels, operational resilience will increasingly deteriorate.		
General Aviation	Access	Qualitative
For private pilots / light aircraft, there will be no airspace design or method of operations changes compared to today. For GA traffic operating within the ATS network, they may continue to do so if they meet the specifications of the route(s). However, like commercial airlines, capacity constraints may result in delays.		
General Aviation / commercial airlines	Economic impact from increased effective capacity	Qualitative
There will be no change to airspace design, however, increased traffic (as expected by 2037) would result in increased ATCO workload in proximity to KONAN / VABIK, hence, to maintain a safe workload, throughput capacity would result in ground delays. That may negatively influence airline's revenue, due to reduced passenger satisfaction and the need for paying out compensations (as per Regulation (EC) No 261/2004) ^(Ref 4) . In the longer-term, aircraft operators may choose to operate via alternative airport(s) if punctuality continues to be a problem.		
General Aviation / commercial airlines	Fuel burn	Quantified and monetised
There will be no change to airspace design, however, ATCO capacity could result in increased holding, ground delay or track miles (to absorb delay) as traffic demand (in line with traffic forecast) increases. Less optimal routes will increase fuel burn resulting in a financial cost to the operator. Fuel burn is calculated based on aircraft published burn rates, depending on their height and speed, with matching flights grouped together. For each group, the most common actual flight route is then allocated to the full group for modelling purposes. Fuel burn has been calculated for the portion of the flight through the region between 2.5W, 6.25E, 49.5N, 52.5N a region larger than the area of the change by more than +100nm but not the full city pair emissions for most flights. Table 5 depict the overall impact of this proposal for the year of implementation (2028) and 10-years post-implementation (2037). Given the significance of LTMA traffic to this change (approximately 70% of the traffic) these airports have also been split out.		

Group	Impact	Level of Analysis	
Table 5 – Fuel Burn for 2028 based on No Change			
Airport	Fuel Burn (t) 2028	Fuel Burn (t) 2037	Change (%)
Bournemouth Departures	6,474.6	6,474.6	0.0
Farnborough Departures	1,154.2	1,187.2	2.9
London Biggin Hill Departures	1,793.3	1,922.7	7.2
London City Departures	12,047.7	13,130.6	9.0
London Gatwick Arrivals	158.6	167.7	5.7
London Gatwick Departures	88,923.7	92,053.9	3.5
London Heathrow Departures	333,509.3	349,384.8	4.8
London Luton Departures	40,500.4	41,964.5	3.6
London Southend Departures	260.9	260.9	0.0
London Stansted Departures	84,249.7	87,504.6	3.9
RAF Northolt Departures	341.1	346.9	1.7
Other UK Departures	42,350.0	43,890.4	3.6
Overflights	125,496.5	155,476.7	23.9
Total	737,260.0	793,765.5	7.7
Between 2028 and 2036, the baseline fuel burn is expected to increase by 7.7%. This is very similar to the traffic forecast growth (8.0%), as per Table 1, and represents limited forecasted traffic growth, rather than aircraft efficiencies.			
Other than London Gatwick Arrivals (see Table 1), NATS have not provided a traffic forecast for traffic heading westbound via KONAN as: this traffic originates from outside the UK and NATS do not have access to these airports’ forecasts; and traffic figures are so low that changes would be absorbed with margin of error for any generic forecast which could be applied. Therefore, this traffic is assumed to stay as per 2025. Therefore, it is expected to be no change compared to today in terms of fuel burn.			
Monetisation of fuel burn is presented within the Option 1: 3 COPs – Full Option Appraisal (Table 6).			
Commercial airlines	Training costs	Qualitative	
There will be no change to airspace design, therefore, no associated costs.			
Commercial airlines	Other costs	Qualitative	
There will be no change to airspace design, therefore, no associated costs.			
Airport / ANSP	Infrastructure costs	Qualitative	
There will be no change to airspace design, therefore, no associated costs.			
Airport / ANSP	Operational costs	Qualitative	
There will be no change to airspace design, therefore, no associated costs.			
Airport / ANSP	Deployment costs	Qualitative	
There will be no change to airspace design, therefore, no associated costs.			
Airport / ANSP	Other costs	Qualitative	
If punctuality becomes an issue (see capacity above), aircraft operators may choose alternative destinations. This could result in the loss of aeronautical and non-aeronautical revenues for airports and route charges for NATS and neighbouring ANSPs depending on where the operator opts to fly instead.			

- 2.4.5 The Baseline 'Do Nothing' option assumes no change to airspace design while accommodating forecast traffic growth from 2028–2037. Under this scenario, there would be no change to local environmental impacts (noise, air quality, tranquillity, biodiversity), but increasing demand would place pressure on air traffic control capacity, leading to more delays, non-optimal flight levels, and longer flight paths. This would result in higher fuel burn and greenhouse gas emissions, reduced access for general aviation, and increased costs for airlines. Over time, persistent congestion may cause operators, passengers and airlines to choose different airport pairs, leading to wider economic impacts.

2.5 Option 1: 3 COPs – Full Options Appraisal

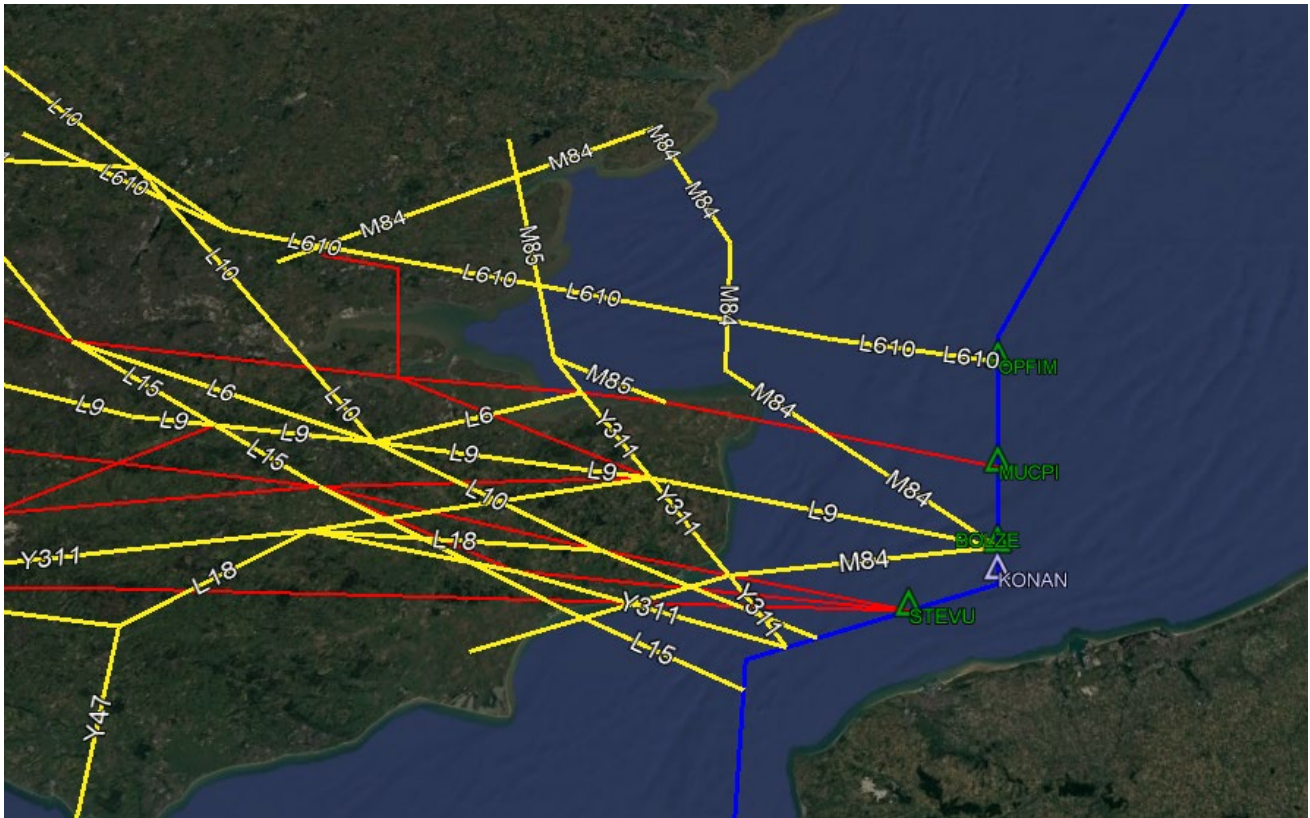


Figure 2 - Overview of Change. Green COPs – new COPs, white COP – retained COP, red ATS routes – RNAV1, yellow ATS routes – RNAV5. Background map: Google Earth Pro

- 2.5.1 For this option the two current FIR / UIR boundary COPs (VABIK and KONAN) are replaced with three new boundary COPs.
- 2.5.2 All traffic currently routing via VABIK and KONAN will be redistributed across the three new COPs, via a systemised route structure based on LTMA departure airport or previous routing within UK airspace. To enable this change, RAPIX COP would also be removed and replaced by a new COP further north; and KONAN will be retained but will not be flight plannable for traffic exiting the UK; there will be changes to ATS routes (to align with the new COPs); new waypoints introduced; and redundant waypoints removed. For more detailed information, please refer to the Consultation Document.

Table 6 - Option 1: 3 COPs

Group	Impact	Level of Analysis
Communities	Noise impact on health and quality of life	Qualitative
As per CAP1616i, noise metrics are only required for changes to flights below 7,000ft. As this ACP concerns traffic above 7,000ft it is therefore not subject to noise analysis.		
Communities	Air quality	Qualitative
As this ACP concerns traffic above 7,000ft it is therefore not subject to air quality analysis.		
Wider society	Greenhouse gas impact	Quantified and monetised
Greenhouse gas emissions are expected to be improved compared to the baseline ('do nothing') option. This proposed design reduces greenhouse gas emissions through: • Reduce tactical deviations from planned flight paths, because of over demand on routes resulting in tactical route changes to maintain separation • Reduced planned track miles for LTMA departures, as aircraft route to their closest exit COP • Improved climb performance, with less level-offs due to capacity constraints • Speed restrictions to maintain correct separation, rather than using track mile changes as today Overall, this proposal results in 5,450 tonnes of enabled CO₂e savings in 2028 and 5,752 tonnes in 2037 compared to the baseline. Over the 10-year period, the total enabled CO₂e savings would be 56,013 tonnes. Based on the output of the WebTAG (see Appendix: 10 Year Greenhouse Gas WebTAG for all Traffic Flows) the total monetised savings over ten-years would be £13,760,194. Carbon dioxide equivalent (CO₂e) is calculated by multiplying the fuel burn estimation by a factor of 3.1783652. Greenhouse gases are a cocktail of atmospheric gases, including water, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone (O₃) and synthetic fluorinated gases. Each omitted in different quantities and impacting global warming in different ways. The greenhouse gas figure is provided to allow stakeholders to compare the design option against the baseline. CO₂e is considered a good proxy to total greenhouse gas emissions and can be used for comparison purposes. Calculating each gas would be resource consuming and disproportionate to any additional benefit it would provide stakeholders. NATS are responsible for the change up to the London FIR / UIR boundary. As the change in routes impacts the exit point for flights modelled, the routings are modelled into European airspace and not stopping at the London FIR border. The finer details of the corresponding changes within European airspace are not known to NATS. Therefore, modelling assumes that traffic remains on systemised routes within European airspace, to a common point, before joining the current ATS network for onward connections to the destination. The actual flight paths are out of scope of this ACP, but assuming they remain on a systemised routes allows for option comparison to occur. All figures are based on a full route benefit per city pair, where the impacts may be within the London FIR / UIR or enabled benefits within European airspace. Table 7 states the total CO₂e impact of this change at year of implementation (2028) and 10-years post-implementation (2037). Table 8 depicts the delta change compared to the baseline. Given the significance of LTMA traffic to this change (approximately 70% of the traffic) these airports have also been split out. NATS have not provided a traffic forecast NATS have not provided a traffic forecast for traffic heading westbound via KONAN as: this traffic originates from outside the UK and NATS do not have access to these airports' forecasts; and traffic figures are so low that changes would be absorbed with margin of error for any generic forecast which could be applied. Therefore, this traffic is assumed to stay as per 2025. Within UK airspace, this traffic will be connected from KONAN to the ATS network by DCT. This is expected to have negligible impacts on track miles. Therefore, there will be no material difference between this option and the "do nothing" in terms of greenhouse gas emissions for these flights. OPFIM is being proposed to replace RAPIX, 0.9nm north of current day location. This adds ~0.04nm (~70 meters) to flight plan track miles. GPS navigation accuracy will see similar changes in path length which are not modelled. Furthermore, normal rounding accuracy is to 0.1nm which means this change would round to 0.0nm track length difference. Overall, NATS propose that this change is inconsequential and declare no impact for greenhouse gas emissions.		

Group	Impact	Level of Analysis
<i>Table 7 - Total Greenhouse Gas Impacts of Option</i>		
	Approximate CO ₂ e (t) 2028	Approximate CO ₂ e (t) 2037
Traded ⁷	787,571	809,642
Non-traded	1,550,261	1,707,483
Total	2,337,832	2,517,125

Table 8 – Greenhouse Gas Impacts Compared to the Baseline “Do Nothing”

Airport	Approximate CO ₂ e (t) Impact 2028	Approximate CO ₂ e (t) Impact 2037
Bournemouth Departures	-76.5	-76.5
Farnborough Departures	+44.2	+45.5
London Biggin Hill Departures	+23.8	+25.5
London City Departures	-168.6	-183.8
London Gatwick Arrivals	-1.6	-1.7
London Gatwick Departures	-717.5	-742.8
London Heathrow Departures	-1,719.7	-1,801.6
London Luton Departures	-1,067.9	-1,106.5
London Southend Departures	-1.2	-1.2
London Stansted Departures	-1,227.3	-1,274.8
RAF Northolt Departures	-10.2	-10.4
Other UK Departures	-144.1	-149.3
Overflights	-383.0	-474.6
Total	-5,449.6	-5,751.9

Whilst the above results are overall, very positive, there are two airports which are disadvantaged by this proposal. London Biggin Hill traffic incurs increased track mileage because of allocation to the northern COP, which retains aircraft further north within UK airspace than the current-day KONAN route. Farnborough traffic is allocated to the southern COP; as flights using the current-day KONAN route are generally destined for eastern and northern Europe, the southern COP maintains these aircraft on a more southerly track for longer before they route north within European airspace. Consequently, both airports experience an increase in track mileage and associated greenhouse gas emissions. However, these increases are more than offset by emissions reductions at other airports, resulting in a net positive CO₂e outcome overall.

Unusually, London Southend receives a track mileage increase as part of this proposal, but benefit from overall greenhouse gas improvements. This is because improved climb performance outweighs the increased track mileage.

⁷ Traded sector is UK departures to UK or EU destinations. Non-traded is all other permutations. Flights from aircraft types with a MTOW <5700kg are non-traded as per WebTAG rules. For this analysis ~67% of emissions were in the non-traded category, as the emissions are heavily biased to long-haul flights from widebody jet types. The annual traded and non-traded CO₂e values for both “without scheme”.

Group	Impact	Level of Analysis
Whilst each of the other LTMA airports have very minimal track mileage improvements compared to today, significant greenhouse gas improvements are seen because of the volume of traffic being impacted.		
Wider society	Tranquillity	Qualitative
As this ACP concerns traffic above 7,000ft it is therefore not subject to tranquillity analysis.		
Wider society	Biodiversity	Qualitative
As this ACP concerns traffic above 7,000ft it is therefore not subject to biodiversity analysis.		
Wider society	Capacity / resilience	Qualitative
Capacity / resilience will be improved compared to the baseline ('do nothing') option.		
<u>Capacity</u> This proposal increases airspace capacity by: - Replacing two COPs (KONAN and VABIK) with three COPs (MUCPI, BOLZE, STEVU) - Implementing a systemised route structure and reducing the number of crossing traffic flows, which reduces ATC intervention (e.g. vectoring, level-offs) - Having MUCPI and STEVU COP systemised by design (for RNAV 1 traffic) However, this proposal limits potential airspace capacity by: - Not changing CAS, meaning that RNAV 5 routings via BOLZE are not separated by design and will need to be monitored by ATC - Traffic heading west into UK airspace, via KONAN, will now be accommodated via DCT to the UK ATS route network		
<u>Resilience</u> This design proposes net improvements to ATCO capacity. This increases the number of flights they can safely handle in each time period. Thus, improving resilience to network demand variations.		
General Aviation	Access	Qualitative
The airspace change does not propose any changes to Class G (uncontrolled) airspace, and so, there will be no impact to GA operations within Class G. For GA traffic operating within the ATS network, they may continue to do so if they meet the specifications of the route(s). This proposal is for RNAV 5 specification via BOLZE, therefore, there should be no access impact on these users.		
General Aviation / commercial airlines	Economic impact from increased effective capacity	Qualitative
Economic impacts may be improved compared to the baseline ('do nothing') option. The option increases the number of routes crossing the FIR / UIR boundary and provides systemised traffic flows which should alleviate the congestion and complexity of the airspace, reducing the requirement to impose delays to manage traffic throughput. Compared to the baseline, the resultant increase in airspace capacity should provide economic benefit to airlines by reducing the financial costs associated with airspace delays. Increased throughput rate would also enable airlines to expand their destination network and general UK air traffic growth. Thus, making UK more attractive and contributing for airlines, passengers, and cargo.		
General Aviation / commercial airlines	Fuel burn	Quantified and monetised
The airspace change does not propose any changes to Class G (uncontrolled) airspace, and so, there will be no impact to GA operations within Class G. For GA and commercial traffic operating within the ATS network, fuel burn is expected to be improved compared to the baseline ('do nothing') option.		

Group	Impact	Level of Analysis
The following components have led to fuel burn improvements within this proposal: - Allocating traffic to COPs based on their based on LTMA departure airport or previous routing within UK airspace - Improved climb performance - and the benefits of STEVU when CBA1 is not activated vs not having the additional COP. Meanwhile, the following aspects have had no material impact on fuel burn: - Change from RAPIX to OPFIM COP - and not changing the base of CAS. However, the speed restrictions on some traffic outbound from some London airports has had a negative effect on fuel burn. Overall, this proposal results in 1,714.6 tonnes (~£900,000) of fuel saving in 2028 and 1,809.7 tonnes (~£700,000) in 2037 compared to the baseline. Fuel burn is calculated using Eurocontrol's BADA⁸ models, using median observed climb rates and speeds for commercial aircraft operating in NATS airspace. This calculation additionally considers aircraft type, altitude, and assumptions of in-flight mass to appropriately estimate the flight planned fuel use required to fly within UK/European Airspace for the most common aircraft types. Flights are assessed for all city-pair, all requested flight level (RFL), and all aircraft types with an appropriate BADA model that used the most common routes (top 543 out of 3,900) in the airspace subject to this ACP. Fuel burn has been calculated for the portion of the flight through the region between 2.5W, 6.25E, 49.5N, 52.5N a region larger than the area of the change by more than +100nm but not the full city pair emissions for most flights. The fuel burn estimate is then averaged per flight and scaled to the annual figures estimated by NATS November 2025 forecast. Finally, uncertainties in fuel estimation are considered to lower the claimed benefit by 13.6% (the total uncertainty for this assessment) so the lower range of the benefits of this ACP are claimed. NATS are responsible for the change up to the London FIR / UIR boundary. As the change in routes impacts the exit point for flights modelled, the routings are modelled into European airspace and not stopping at the London FIR border. The finer details of the corresponding changes within European airspace are not known to NATS. Therefore, modelling assumes that traffic remains on systemised routes within European airspace, to a common point, before joining the current ATS network for onward connections to the destination. The actual flight paths are out of scope of this ACP, but assuming they remain on a systemised routes allows for option comparison to occur. All figures are based on a full route benefit per city pair, where the impacts may be within the London FIR / UIR or enabled benefits within European airspace. Table 9 states the total fuel burn for this change for the year of implementation (2028) and 10-years post-implementation (2037). Meanwhile, Table 10 depicts the delta for the change compared to the baseline. Given the significance of LTMA traffic to this change (approximately 70% of the traffic) these airports have also been split out. For transparency, both an average and total track mile reduction has been quoted; fuel savings are based on the total track mile reduction. NATS have not provided a traffic forecast NATS have not provided a traffic forecast for traffic heading westbound via KONAN as: this traffic originates from outside the UK and NATS do not have access to these airports' forecasts; and traffic figures are so low that changes would be absorbed with margin of error for any generic forecast which could be applied. Therefore, this traffic is assumed to stay as per 2025. Within UK airspace, this traffic will be connected from KONAN to the ATS network by DCT. This is expected to have negligible impacts on track miles. Therefore, there will be no material difference between this option and the "do nothing" in terms of fuel burn for these flights. OPFIM is being proposed to replace RAPIX, 0.9nm north of current day location. This adds ~0.04nm (~70 meters) to flight plan track miles. GPS navigation accuracy will see similar changes in path length which are not modelled. Furthermore, normal rounding accuracy is to 0.1nm which means this change would round to 0.0nm track length difference. Overall, NATS propose that this change is inconsequential and declare no impact for fuel burn.		

⁸ This document has been created with or contains elements of Base of Aircraft Data (BADA) Family 4 (up to and including 4.2/4.3 Releases), which has been made available by EUROCONTROL to NATS, has all relevant rights to BADA. ©2026 The European Organisation for the Safety of Air Navigation (EUROCONTROL). All rights reserved. EUROCONTROL shall not be liable for any direct, indirect, incidental or consequential damages arising out of or in connection with this product or document, including with respect to the use of BADA.

Table 9 - Total Fuel Burn Impacts of Option

Total Fuel Burn (t) 2028	Total Fuel Burn (t) 2037
735,545.4	791,955.8

Table 10 – Track Miles and Fuel Burn Savings Compared to the Baseline “Do Nothing”

Airport	Average Track Mile Reduction (nm) 2028	Total Track Mile Reduction (nm) 2028	Fuel Burn Savings (t) 2028	Average Track Mile Reduction (nm) 2037	Total Track Mile Reduction (nm) 2037	Fuel Burn Savings (t) 2037
Bournemouth Departures	-0.8	-679.8	-24.1	-0.8	-679.8	-24.1
Farnborough Departures	+0.8	+862.9	+13.9	+0.8	+887.7	+14.3
London Biggin Hill Departures	+1.9	+4,964.7	+7.5	+1.9	+5,322.9	+8.0
London City Departures	-1.9	-14,802.7	-53.1	-1.9	-16,133.3	-57.8
London Gatwick Arrivals	+0.1	+9.4	-0.5	+0.1	+11.4	-0.5
London Gatwick Departures	-0.8	-23,794.0	-225.8	-0.8	-24,631.6	-233.7
London Heathrow Departures	-0.6	-46,498.7	-541.1	-0.6	-48,712.1	-566.8
London Luton Departures	-4.6	-61,370.1	-336.0	-4.6	-63,588.7	-348.1
London Southend Departures	+1.0	+192.7	-0.4	+1.0	+192.7	-0.4
London Stansted Departures	-1.1	-39,853.6	-386.1	-1.1	-41,393.3	-401.1
RAF Northolt Departures	-4.8	-2,184.0	-3.2	-4.8	-2,221.0	-3.3
Other UK Departures	-0.3	-5,436.8	-45.3	-0.3	-5,634.5	-47.0
Overflights	-0.3	-12,194.0	-120.5	-0.3	-15,107.1	-149.3
Total	-0.9	-200,784.0	-1,714.6	-0.9	-211,688.2	-1,809.7

Group	Impact	Level of Analysis
Over the 10-year period, the total fuel savings would be ~£7.9 million (see Table 11). The cost of fuel has been calculated using the average exchange rate between Great British Pounds (£), Euros (€), and US Dollars (\$) as per http://www.exchangerates.org.uk/ and jet-fuel (kerosene) prices per gallon over the past 12-months as per http://www.indexmundi.com/commodities/?commodity=jet-fuel&months=12 ⁹. A NPV, year-on-year 3.5% discount is applied from 2023 cost base.		
Commercial airlines	Training costs	Qualitative
Flight procedures worldwide are updated with each aeronautical information regulation and control (AIRAC) cycle, and airlines update their procedures accordingly, training as required. This is considered business as usual; the extent and cost of such training is outside of NATS' control and cannot be quantified here.		
Commercial airlines	Other costs	Qualitative
There are no additional associated costs for airlines anticipated.		
Airport / ANSP	Infrastructure costs	Qualitative
Infrastructure costs (ANSP) may be increased compared to the baseline ('do nothing') option. The implementation of this option by NATS within the London FIR / UIR would require complementary changes to take place in the Brussels FIR, Brussels UIR, and France UIR impacting skeyes (Belgium), EUROCONTROL Maastricht and DSNA ANSPs respectively. Adaptation updates to relevant ANSP systems would be required to accommodate flight plan processing, map displays, electronic flight data etc. associated with the new ATS route structure. This is typically done in line with routine AIRAC implementation processes. Note: NATS cannot quantify infrastructure costs for other ANSPs; the scale of changes outside of the London FIR / UIR is unknown at this point, however, NATS is closely working alongside neighbouring ANSPs as part of this coordinated airspace change.		
Airport / ANSP	Operational costs	Qualitative
Operational costs are not expected with the implementation of this option.		
Airport / ANSP	Deployment costs	Qualitative
Deployment costs (ANSP) would be increased compared to the baseline ('do nothing') option. The implementation of this option would require ATC training and validation. Costs could include use of simulator facilities including engineering / support staff; data preparation and testing; safety / HF / validation analysts etc. For NATS, this will involve training of approximately ~325 ATCO and ~40 ATC support staff, with level of training varying from briefings to simulator training, depending on the role. For commercial reasons, the cost of this will not be provided. NATS cannot quantify deployment costs for airports or other ANSPs as that will depend on their individual training needs analysis.		
Airport / ANSP	Other costs	Qualitative
There are no additional associated costs for airports / ANSPs anticipated.		

⁹ Given the current volatility in the oil market (because of supply and demand dynamics; geopolitical factors; market speculations; and economic influences) the actual cost / savings to airlines could be considerably different to those presented here. However, the numbers and methodology remain accurate for comparison purposes.

Table 11 - Option 1: 3 COPS - Cost Benefit Analysis

	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	Total
CO₂e Traded	£277,380.8	£311,663.9	£328,790.1	£325,492.9	£316,390.6	£316,186.2	£319,175.1	£307,297.2	£301,417.6	£289,620.6	£3,093,415.0
CO₂e Non-traded	£537,743.2	£550,379.7	£563,276.4	£576,629.2	£589,870.3	£603,577.7	£617,765.8	£632,043.0	£646,817.9	£661,687.0	£5,979,790.3
Fuel Burn	£893,384.0	£868,182.0	£844,286.0	£820,608.0	£797,958.0	£775,522.0	£753,692.0	£732,451.0	£711,784.0	£691,868.0	£7,889,734.0
Total	£1,710,536.00	£1,732,254.60	£1,738,382.50	£1,724,761.10	£1,706,250.90	£1,697,318.90	£1,692,666.90	£1,673,826.20	£1,662,055.50	£1,645,212.60	£16,962,939.30

- 2.5.3 Table 11 shows there will be an £9.1 million saving in CO₂e, £7.9 million saving in fuel burn, and £17 million total savings across the ten-year period (2028 – 2037) compared to the baseline “do nothing”.
- 2.5.4 Under this option, there would be no change to local environmental impacts (noise, air quality, tranquillity, biodiversity). There would be no change to GA access within Class G airspace (as there would be no change to CAS volumes), but changes to RNAV classification could limit access to controlled airspace for some users, although RNAV5 routes are still available via BOLZE. There would be a significant net reduction in fuel burn and associated greenhouse gas emissions. Capacity, resilience, and economic impacts of increased capacity would improve. However, there will be training and deployment costs associated with this change. Overall, this proposed design sees net improvements compared to the baseline “do nothing” option.
- 2.5.5 As the only design option, and the notable benefits compared to the baseline “do nothing” option, this is NATS’s preferred option.

3. Safety Assessment

3.1 Overview

- 3.1.1 This section provides a brief, qualitative overview of the impact of each option on aviation safety.

3.2 Options Appraisal Safety Assessment - Baseline 'Do Nothing'

- 3.2.1 If there is no change to the current connectivity at the DVR interface, there would be no foreseeable change to the current safety performance; traffic demand through the airspace would be managed to make sure that safety was not compromised with the predicted increase in traffic. That may lead to more delays on the ground.
- 3.2.2 This ACP seeks to address current inefficiencies in the route network, improving traffic presentation to adjacent ANSPs, and enabling more efficient flight planning and increased throughput. It has not been raised to address any safety concerns.

3.3 Options Appraisal Safety Assessment: 3 COPs – Current Position

- 3.3.1 The changes to the current operational environment because of the DVR 3COPs changes are being assured in accordance with the NATS Safety Management System (SMS). At this stage an Assurance Plan has been developed to detail the assurance activities to be undertaken in support of the project and two safety workshops have been completed.
- 3.3.2 The first of these was the Preliminary Hazard Identification (PHI) workshop that was conducted in mid-January 2026, in advance of the development simulations which took place the following week. The post development simulation Hazard Identification and Risk Assessment workshops extended over 2 days in February 2026. Participants at both the PHI and the Hazard Identification and Risk Assessment workshops included operational controllers, holding unit validations on the sectors impacted by the change, as well as SME from other parts of the business e.g. ATC Training and Human Factors.
- 3.3.3 The PHI provided an opportunity for the participants to conduct a qualitative assessment of the changes and identify issues that could have a safety impact. The participants at the PHI identified a number of potential issues associated with the revised design, although none of these issues were considered to have a significant safety impact. However, the issues were still taken forward to the Development Simulations and subsequent post development simulation Hazard Identification and Risk Assessment workshops. At these workshops all of the open issues from the PHI, were incorporated in one of the four hazards derived with the agreement of all participants.
- 3.3.4 Subsequent quantitative risk assessment in accordance with the NATS SMS resulted in acceptable outcomes for all the hazards before any mitigation was applied. Despite obtaining acceptable outcomes pre mitigation, NATS is obliged to implement all reasonable safety improvement where this is practicable. As a result, mitigations in the form of recommendations were derived. These are not mandatory but their inclusion or otherwise will be reported in the Change Assurance Report.
- 3.3.5 A further Hazard Identification and Risk Assessment workshop will be conducted following the Validation Simulation. If there are significant design changes between now and the validation activity, a further Hazard Identification and Risk Assessment Workshop will also be held prior to the validation simulation.

4. Conclusions

4.1 Conclusions

- 4.1.1 This Full Options Appraisal (FOA) assessed the impacts and safety performance of both the Baseline 'Do nothing' option and the design Option 1: 3COPs.
- 4.1.2 The baseline option is not supported by stakeholders. The EUROCONTROL Network Manager, airlines and airports have raised concerns around the current levels of congestion in this busy airspace region, and the resultant delays and inefficient flight profiles. Over the 10-year time horizon, the detrimental impacts on delay and flight profiles will likely worsen with the forecasted increase in traffic levels. That is why, the option was rejected in Stage 2 and an assessment of the baseline ('do nothing') option is included in the FOA document only for comparison purposes.
- 4.1.3 Option 1: 3COPs the only viable option: it aligns with the extant network airspace; it delivers the required capacity; and maintains safety. In addition, Table 11 shows there will be an £17 million total fuel / CO₂e saving across the ten-year period (2028 – 2037) compared to the baseline "do nothing".

5. Appendix: 10 Year Greenhouse Gas WebTAG for all Traffic Flows

5.1 WebTAG Workbook Output 1

Greenhouse Gases Workbook - Outputs 1						
Scheme Name: <u>DVR COP replacement</u>						
Present Value Base Year	<u>2023</u>		Unit of account	<u>Market prices</u>		
Current Year	<u>2026</u>					
Proposal Opening year:	<u>2028</u>					
Project (Road/Rail or Road and Rail):	<u>Road</u>					
Overall Assessment Score:						
Net Present Value of carbon dioxide equivalent emissions of proposal (£): (Sum of traded and non-traded emissions - see note below on accounting for UK allowances in the traded sector)				<u>£13,760,194</u>		
				*positive value reflects a net benefit (i.e. CO2e emissions reduction)		
Quantitative Assessment:						
Change in carbon dioxide equivalent emissions over 60 year appraisal period (tonnes): (between 'with scheme' and 'without scheme' scenarios)				<u>-56,013</u>		
				*negative value reflects a net benefit (i.e. CO2e emissions reduction)		
Of which Traded				<u>-25466</u>		
Change in carbon dioxide equivalent emissions in opening year (tonnes): (between 'with scheme' and 'without scheme' scenarios)				<u>-5,450</u>		
Net Present Value of traded sector carbon dioxide equivalent emissions of proposal (£): N.B. This value has been adjusted to account for the cost of emissions covered by the UK Emissions Trading Scheme (UK ETS), under the assumption that all assessed traded emissions are within the scope of the UK ETS. For further information, including guidance on the valuation of traded emissions outside the scope of the UK ETS, please refer to TAG Unit A3, section 4.1.				<u>£5,149,013</u>		
				*positive value reflects a net benefit (i.e. CO2e emissions reduction)		
Change in carbon dioxide equivalent emissions by carbon budget period:						
	Carbon Budget 1	Carbon Budget 2	Carbon Budget 3	Carbon Budget 4	Carbon Budget 5	Carbon Budget 6
Traded sector	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-12617</u>	<u>-12849</u>
Non-traded sector	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-14971</u>	<u>-15576</u>
Qualitative Comments:						
Sensitivity Analysis: (Traded and non-traded)						
Upper Estimate Net Present Value of Carbon dioxide Emissions of Proposal (£):				<u>£21,108,847</u>		
Lower Estimate Net Present Value of Carbon dioxide Emissions of Proposal (£):				<u>£6,548,213</u>		
Data Sources:						

5.2 WebTAG Workbook Output 2

Greenhouse Gases Workbook - Outputs 2 (Carbon Metrics)		
For detailed guidance on carbon metrics, please refer to TAG Unit A3, Appendix D.		
Scheme Name:	DVR COP replacement	
Net Social Value (Scheme NPV)		Required for calculating carbon metrics. Units: £, 2023 prices.
Carbon Metrics		
Carbon Effectiveness Indicator (CEI)	N/A	The net non-carbon social impact of a scheme per tonne of its net impact on carbon emissions (in tCO ₂ e). Units: £/tCO ₂ e.
Weighted Average Cost Comparator (WACC)	245.66	The monetary value of a scheme's net carbon impacts per tonne of its net impact on carbon emissions (in tCO ₂ e). Units: £/tCO ₂ e.
Carbon Efficiency Metric (CEM)	N/A	A ratio that captures the value of a scheme's carbon impacts per £ of its net non-carbon social impacts. This is essentially the scheme's "carbon BCR", and it allows different schemes (with potentially different profiles of carbon emissions) to be ranked in terms of their overall carbon cost-effectiveness.
Interpretation		
- The scheme generates 56013 tCO₂e of net carbon savings over the appraisal period. - The present value benefit of carbon is £13760194.		
#DIV/0!		
- More information needed.		
The Cost Effectiveness Indicator indicates if the scheme saves carbon in a relatively valuable way for societal welfare. The Weighted Average Cost Comparator is a benchmarking metric for the CEI. The Carbon Efficiency Metric can be interpreted as a "Carbon BCR".		

6. Appendix: Glossary

Acronym	Definition	Brief description of the terms
ACP	Airspace Change Proposal	A formal submission outlining proposed changes to airspace design or operations, assessed under regulatory processes.
CFMU	Aeronautical Information Regulation and Control	A globally coordinated system for implementing aeronautical information changes at fixed 28-day intervals.
-	Airspace Capacity	The maximum number of aircraft movements or operations that can be safely managed within a given airspace
ANSP	Air Navigation Service Provider	An organisation responsible for providing air traffic management and related services.
ATC	Air Traffic Control	A service provided to ensure the safe and efficient movement of aircraft in controlled airspace.
ATCO	Air Traffic Control Officer	A licensed professional responsible for ensuring the safe and efficient movement of aircraft.
ATS	Air Traffic Service	A collective term for services such as ATC, flight information, and alerting services.
BADA	Base of Aircraft Data	An Aircraft Performance Model (APM) developed and maintained by EUROCONTROL
-	Baseline Scenario (Do nothing)	A reference scenario representing current operations without any proposed changes, used for comparison in assessments
CAA	Civil Aviation Authority	The national regulatory body responsible for aviation safety, airspace regulation, and oversight.
CAP	Civil Aviation Publication	Official publications issued by the CAA containing policy, guidance, or regulatory requirements.
-	Class A Class G	Airspace is classified A – G based on numerous factors such as traffic density and altitude. Class A is a form of controlled airspace. Class G is uncontrolled airspace.
CAS	Controlled Airspace	Airspace within which air traffic control service is provided in accordance with classifications.
CBA	Military Cross Border Area	A volume of airspace primarily used for security threats, with short-notice activation.
CFMU	Central Flow Management Unit	A unit responsible for managing air traffic flow, ensuring the efficient use of airspace, and coordinating flight schedules.
CH ₄	Methane	A greenhouse gas emitted by aircraft, used as a key metric for environmental impact assessment.
CO ₂	Carbon Dioxide	A greenhouse gas emitted by aircraft, used as a key metric for environmental impact assessment.
CO ₂ e	Carbon Dioxide Equivalent	This is a unit of measure which translates all greenhouse gases into the equivalent amount of carbon dioxide need to generate the same warming effect. Greenhouse gases are a cocktail of atmospheric gases, including water, carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), ozone (O ₃) and synthetic fluorinated gases. Each emitted in different quantities and impacting global warming in different ways. CO ₂ e is considered a good proxy to total greenhouse gas emissions and can be used for comparison purposes

Acronym	Definition	Brief description of the terms
COPs	Coordination Points	Predefined points in airspace where responsibility for an aircraft is transferred between control sectors or units.
DCT	Direct	A clearance allowing an aircraft to fly directly between two points without following established routes.
DSNA	Direction des Services de la navigation aérienne	The French ANSP.
DVR	Dover	Area associated with the Dover region, commonly used in route planning.
FIR	Flight Information Region	A defined airspace region in which flight information and alerting services are provided.
FOA	Full Options Appraisal	A middle-stage assessment of potential options for an airspace change.
ft	feet	A measure of distance above mean sea level using a local or regional pressure setting.
GA	General Aviation	Civil aviation operations other than commercial scheduled air services. The most common type of GA activities are business jets and recreational flying by private light aircraft.
HF	Human Factors	The scientific study and application of knowledge about human abilities, limitations, and behaviours to design systems, products, and environments that are safer, more intuitive, and more effective.
kg	kilogram	A unit of weight.
LTMA	London Terminal Control Area	The TMA serving airports around London.
N ₂ O	Nitrous Oxide	A greenhouse gas emitted by aircraft, used as a key metric for environmental impact assessment.
nm	Nautical Miles	In aviation, distances are measured in nautical miles (nm). 1nm is approximately 1.151 statute miles.
-	Network Manager	The European entity responsible for coordinating and optimising the performance of the ATM network.
-	NATS	The principle UK ANSP.
NPV	Net Present Value	The value of investment based on current terms, therefore considering inflation from future values.
-	Non-traded	Within WebTAG carbon emissions are reported as either traded or non-traded. Traded emissions are activities covered by a scheme which allows emissions allowances to be bought and sold. A traded sector is UK departures to UK or EU destinations. A non-traded sector includes all other permutations. Flights from aircraft types with a MTOW <5700kg are non-traded as per WebTAG rules.
O ₃	Ozone	A greenhouse gas emitted by aircraft, used as a key metric for environmental impact assessment.
PHI	Preliminary Hazard Identification	An early-stage safety assessment workshop used to identify potential hazards associated with a proposed change before detailed design or simulations are completed.
RNAV1	Area Navigation 1	A navigation specification requiring aircraft to maintain a lateral accuracy of ± 1 nautical mile for 95% of the time.
RNAV5	Area Navigation 5	A navigation specification requiring aircraft to maintain a lateral accuracy of ± 5 nautical miles for 95% of the time.
-	Sector	A precisely defined 3D volume of airspace and altitude for which a designated team of air traffic controllers holds responsibility.

Acronym	Definition	Brief description of the terms
S15	Sector 15	A volume of UK airspace located overhead the SE of England.
SME	Subject Matter Expert	A person who is considered an expert in the topic being discussed
-	Tactical deviation	A short-term change to an aircraft's planned route to resolve conflicts or improve flow.
t	Tonne	A metric Tonne, equivalent to 1,000kg
TMA	Terminal Control Area	Controlled airspace surrounding major airports, where arriving and departing traffic is managed.
-	Traded	Within WebTAG carbon emissions are reported as either traded or non-traded. Traded emissions are activities covered by a scheme which allows emissions allowances to be bought and sold. A traded sector is UK departures to UK or EU destinations.
-	Traffic flow	The number of aircraft that can pass through a defined airspace within a given time.
UIR	Upper (Flight) Information Region	The upper portion of a Flight Information Region, typically covering higher altitudes.
UK	United Kingdom	The country of the United Kingdom
-	Waypoint	A predetermined geographical position used for navigation and routing, defined by specific latitude and longitude coordinates.

End of Network Improvements on the UK Dover (DVR) Interface Stage 3 Full Options Appraisal Document