Operational Service Enhancements Project:- New Amsterdam/London UIR Crossing Point

Gateway documentation:
Stage 3 Consult

Consultation Document
V1.1
3rd March to 14th April 2022

Roles

Action	Role	Date
Produced	Airspace Change Specialist NATS Airspace Change Compliance & Delivery	February 2022
Reviewed Approved	ATC Lead NATS	February 2022
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Drafting and Publication History

Issue	Month/Year	Changes this issue
0.5	February 2022	Submitted to the CAA for Approval prior to publication
0.6	March 2022	Following CAA Stage 3 Gateway Feedback the following has been updated: • Reference numbers have been updated • Explanation that the fleet make up is for all years included and table 1 updated to make this clearer • Traffic assumptions updated to reflect only Option 6 • Option 6 description expanded to provide further information on the option • Para 5.9 updated to say the CAA have confirmed the change level • Additional Column added to table 2 to relate each route back to the stage 2 option • Addition of table 3 to show potential track mileage savings for example city pairs • Quantitative Fuel and CO_2 savings have been removed • Timeline has been updated to reflect fixed implementation date
1.0	March 2022	Published on Citizen Space consultation website
1.1	March 2022	Typo in a route in Table 3 updated. EGCH updated to EGKH

References

Ref No	Description	Hyperlinks
1	OSEP:- New Amsterdam/London UIR Crossing Point – progress through CAP1616	Link
2	Stage 1 Assessment Meeting Presentation	Link
3	Stage 1 Assessment Meeting Minutes	Link
4	Stage 1 Design Principles	Link
5	Stage 2 Design Options and Evaluation	Link
6	Stage 2 Initial Options Appraisal including Safety Appraisal	Link
7	Stage 3 Consultation Strategy	Link
8	Stage 3 Full Options Appraisal	Link

Contents

1. Executive Summary

1.1 This ACP is being progressed as part of NATS En-Route's (NERL's) Operational Service Enhancements Project (OSEP). This project seeks to deliver changes across NERL airspace between now and 2027. These changes will deliver benefits through enabled fuel savings to customers, reduced routing inefficiency, safety improvements and alleviating capacity hotspots.

1.2 Maastricht Upper Area Control (MUAC) introduced Free Route airspace and Flexible Use Airspace (FRA/FUA) into the Amsterdam Upper Information Region (UIR, Flight information Region (FIR) above FL245) in December 2019.

1.3 Following their introduction of FRA/FUA, MUAC identified a need to improve the existing connectivity between the UK ATS Upper route network and the Amsterdam UIR by the addition of a new coordination/crossing point (COP) on the London/Amsterdam Upper Flight Information Region (UIR) boundary. This new point will facilitate improved transfer of aircraft between the two Air Navigation Service Providers.

1.4 MUAC are introducing this point, named RENEQ, at the UIR boundary but are unable to provide connectivity to the UK Air Traffic Services (ATS) Route Network.

1.5 This ACP proposes to introduce 5 new conditional routes; the extension of 3 existing routes; the alteration of 2 existing CDRs to make them bi-directional and thereby replicate existing night-time fuel saving routes (NTFSRs) so that they become available H24. This change will also make minor alterations to existing routes to enable Flight plan connectivity. As a consequence, these route changes will, subject to SUA activity within the Southern North Sea, enable improved bi-directional connectivity via the new COP (RENEQ) in addition to already established COPS.

2. Introduction

2.1 The NATS En-Route Ltd. (NERL) Operational Service Enhancements Project (OSEP) is seeking to deliver changes across NERL airspace between now and 2027. These changes will deliver benefits through enabled fuel savings to customers, reduced routing inefficiency, safety improvements and alleviating capacity hotspots.

2.2 EU regulation No. 716/2014 requires the implementation of Free Route Airspace (FRA) within upper airspace. Following the introduction of FRA and Flexible Use Airspace (FRA/ FUA) into the Amsterdam Upper Information Region (UIR), (above FL245) in December 2019. Maastricht Upper Area Control (MUAC) have subsequently requested the introduction of a new coordination/crossing point (COP) on the London/Amsterdam UIR boundary to facilitate the transfer of aircraft (Figure 1). The point RENEQ[1] was submitted to the International Codes and Routes Designators (ICARD) system (Created on ICARD 21/01/2022) and has the following coordinates 54°14'25"N 004°18'00"E.

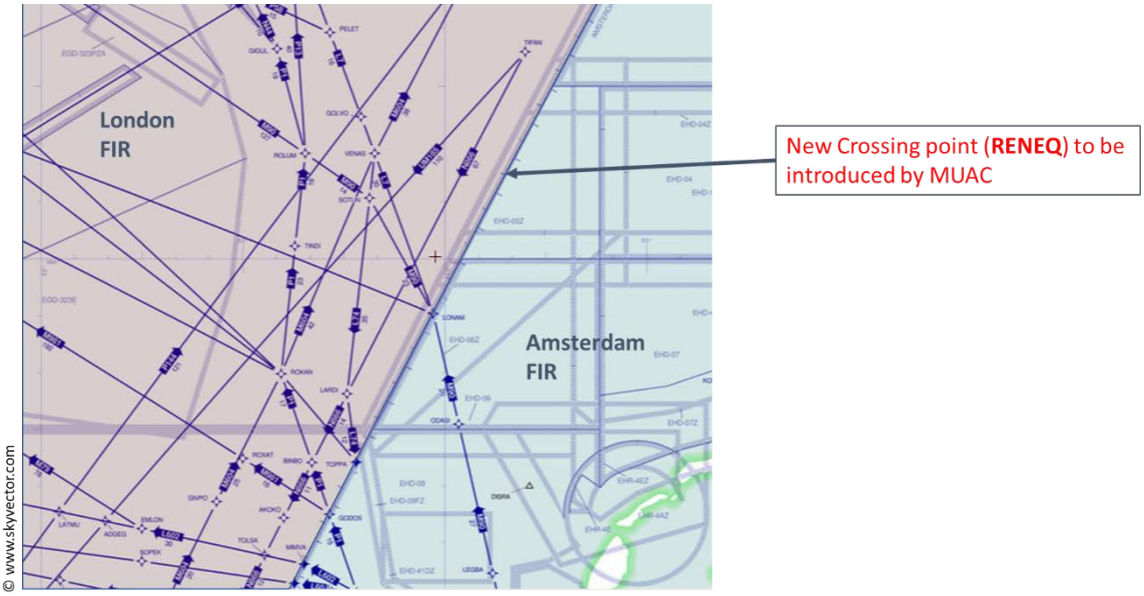

Figure 1: Location of new COP RENEQ to be introduced by MUAC.

2.3 The introduction of this point will enable improved connectivity between the London and Amsterdam UIRs for aircraft operating above FL245 as a result of FRA within the MUAC Area of Responsibility, providing fuel savings and reducing CO_2 emissions.

2.4 Whilst MUAC are able to introduce a new COP on the FIR boundary, they are not able to provide connectivity within the UK UIR to this point. This connectivity requires the completion of an Airspace Change Proposal (ACP) via the UK Civil Aviation Authority's (CAA) CAP1616 process.

2.5 As part of the NATS OSEP, NATS have commenced an Airspace Change Proposal (ACP) to provide connectivity between the UK ATS route network and the new COP, as well as refining existing connectivity in the vicinity.

1 The position of RENEQ has been determined by MUAC to align with the orientation of existing of SUAs contained within their Area of Responsibility.

3. Engagement Activities Completed to Date

3.1 The NATS engagement activities have been undertaken in accordance with the plan described during the Stage 1 Assessment Meeting (Refs 2 and 3). The engagement activities undertaken up to Stage 1 (Ref 4) and Stage 2 (Refs 5-6) are detailed in the relevant documentation. Note: All related documentation is available on the CAA Airspace Change Portal here.

3.2 This proposal occurs over the high seas, with no perceivable impact to stakeholders on the ground or general aviation. As such, the engagement activities that have taken place has primarily targeted the following stakeholders:

- MoD (through DAATM)
- MUAC
- Airlines (Through NATMAC representation).

3.3 To date, no objections have been raised to this proposal.

4. Current Airspace

UK and Amsterdam UIR boundary

4.1 The current connectivity between the London and Amsterdam UIRs in the southern North Sea is shown in Figure 2:

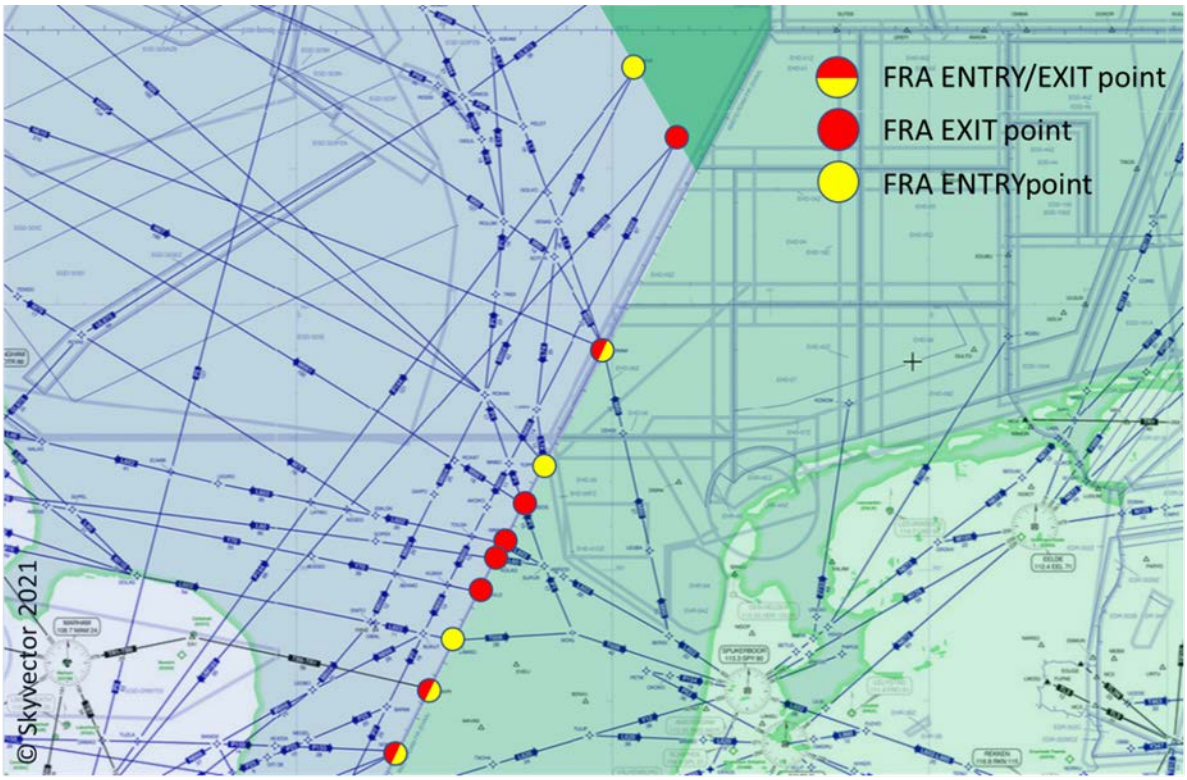

Figure 2: Current interface between the Amsterdam and London UIRs in the Southern North Sea. Existing COP points are highlighted with the FRA role.

4.2 Aircraft operating East of the interface within MUACs area of responsibility (Light Green) and within the Scottish FRA D1 area (Dark Green) do so using FRA principles[2]. When leaving FRA (via a FRA Exit point) or entering (via a FRA Entry point), aircraft are required to do so via published COPs situated on the interface between the London and Amsterdam/ Scottish FRA D1 UIRs.

4.3 Aircraft operating within the London UIR do so by filing and flying routes according to the UK ATS route network.

4.4 Currently aircraft are required to route towards a FRA entry or exit point before continuing their route. This results in aircraft flying additional track mileage and limits the benefits of FRA within the MUAC area of responsibility.

4.5 To enhance the benefits of FRA within the Amsterdam UIR, MUAC are introducing an additional COP (RENEQ), north of LONAM, be added to the Amsterdam / London UIR interface. The introduction of RENEQ will provide a basis for future FRA deployments within the London UIR whilst allowing aircraft to fly, shorter, more

2 Free Route Airspace is defined as "A specified airspace within which users may freely plan a route between a defined entry point and a defined exit point, with the possibility to route via intermediate (published or unpublished) way points, without reference to the ATS route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control."

direct routes in the interim. This will increase the efficiency of the airspace within the Amsterdam UIR resulting in decreased fuel burn and CO_2 emissions.

4.6 The introduction of this new reporting point by MUAC and the improved connectivity provided by this ACP will enable more efficient flight planning options with track mileage savings across the whole route filed[3], subject to SUA activity within both UIRs. These options are provided in addition to the existing routes thereby allowing operators to plan for the most expeditious route available.

4.7 Whilst all connectivity options could provide a benefit across the whole route, this benefit might be contained in UK, Amsterdam or both UIRs. In some circumstances, aircraft might have a slight disbenefit within the UK UIR; however, this enables a greater benefit within the Amsterdam UIR, or vice versa.

4.8 The addition of this improved connectivity will not remove any existing options from the route network that operators currently use. It will provide aircraft operators with an increased number of route options allowing them to flight plan the most expeditious route available. It is expected that operators will flight plan the most direct, and therefore shortest routes subject to upper wind direction and speed and thus provide them with the maximum fuel and CO_2 benefits. As the existing routes will remain as flight plannable options, this change will not result in a fuel or CO_2 disbenefit for operators.

Traffic Patterns

4.9 A 2-week traffic sample, 3rd-16th August 2020, representing a busy period following the introduction of FRA within the Amsterdam UIR, of aircraft routing through the affected UK airspace above FL200 is shown below (Figure 3).

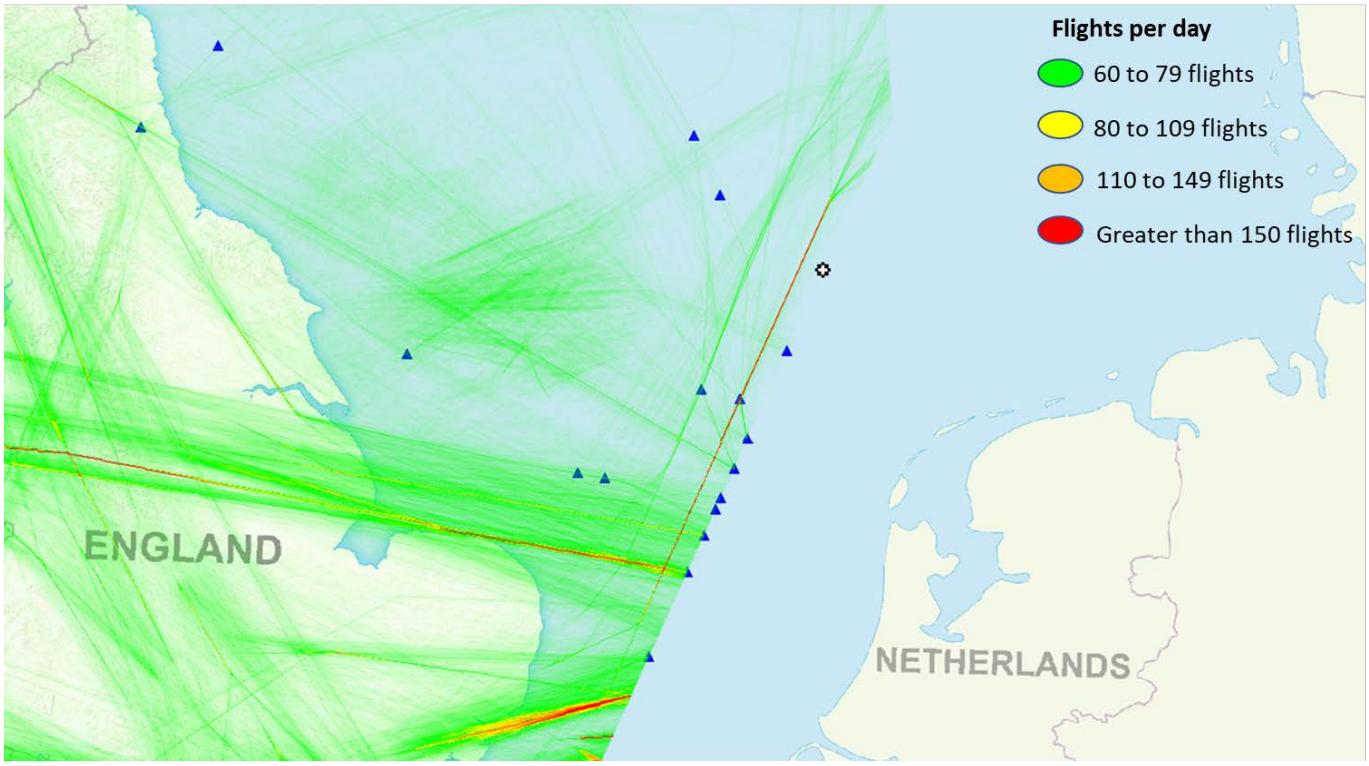

Figure 3: ATC Playback Trajectory Density plot showing aircraft routing through the airspace impacted by this change following the introduction of FRA within the Amsterdam UIR. Data is for all flights above FL200 for the period 3rd-16th August 2020. Radar data is not available for aircraft within the Amsterdam UIR.

3 Track mileage savings might be made within the London UIR, Amsterdam UIR or both. Overall the distance flown by an aircraft will remain the same or reduce when compared to the present day scenario.

4.10 However, traffic volume in 2020 was heavily reduced by the Covid-19 pandemic. As such aircraft may have been more frequently issued tactical shortcuts flying non-standard routings. Figure 4 shows the same region for a single week[4], 5th-11th August 2019 (a busy period prior to the implementation of FRA within the Amsterdam UIR) to provide a clearer indication of traffic volume and patterns within the impacted UK UIR region. Both Figure 3 and Figure 4 show a clear correlation between track density and the UK ATS route network (Shown in Figure 2).

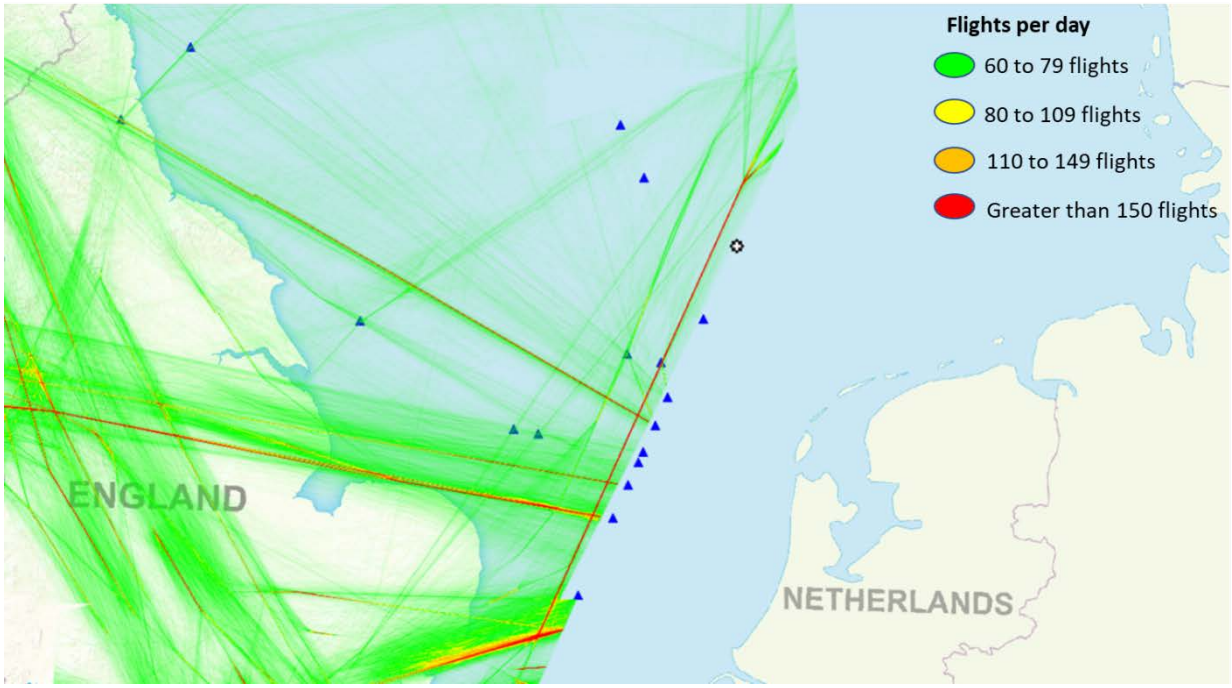

Figure 4: ATC Playback Trajectory Density plot showing aircraft routing through the airspace impacted by this change prior to the introduction of FRA within the Amsterdam UIR. Data is for all flights above FL200 for the period 5th – 11th August 2019. Radar data is not available for aircraft within the Amsterdam UIR.

4.11 FRA was introduced within the Scottish UIR in December 2021. To date, radar data is unavailable to demonstrate the change this has had on traffic within the impacted area.

Current and Forecast Traffic Numbers

4.12 Following the July 2021 workshop, the European Union Network Manager (EU NM) analysed 2 days of traffic from 2019 for flights which could have elected to flight plan via this new COP if option 6 presented in this document had been available. 1 weekday (5th July 2019) and 1 weekend day (5th May 2019) were selected to demonstrate the potential use of this option. These dates were provided to account for the different traffic patterns operating midweek vs the weekend and SUA activations which are prevalent on weekdays. Additionally, these specific days were used as they included a northerly North Atlantic Track flow i.e they captured European to North America flights crossing the area and this could then be used to model usage and ensure the design options were optimised. The EU NM provided NATS with the results of this analysis as well as the traffic sample used. NATS analytics have used this data to forecast the number of flights which could flight plan via this COP between 2022, the year following implementation, and 2032, 10 years post implementation and included the fleet make up based upon 2019 data (See Table 1). This forecast makes the following assumptions:

- The days provided represent typical midweek/weekend use
- Traffic has been grown/shrunk using approved forecast models

4 A single week from 2019 was used as traffic volumes were greatly increased. A longer time period could not be visualised due to the data size resulting from a larger traffic set.

- Northerly North Atlantic (NAT) Tracks account for approximately 40% of the yearly European to North American flow orientation.
- Aircraft will flight plan the most direct routings available. As aircraft are expected to flight plan via the most efficient route available, either new or extant, there will be no disbenefit attributed to this change.
- SUA activations within the London and Amsterdam UIR will continue to be a feature of weekday operations (However, it is not possible to predict danger area activations in advance i.e over the course of a 10 year period) [5]
- Growth between 2022 and 2032 is assumed to be linear,

4.13 The actual number of aircraft utilizing this COP post implementation is likely to be lower than the one presented. This is a result of the proposed connectivity not necessarily be available the whole time due to periods of SUA activity. Route usage will also be lower when the northerly NAT tracks are not in use. It is anticipated that operators will flight plan via the most efficient route available and therefore the option consulted upon will result in no increase in fuel burn or CO_2 emissions over the current day operation.

Year	Flight Count	Aircraft Types (%) [6]			
2022	38,039	B738 (30.5)	B744 (2.2)	A21N (0.6)	C17 (0.4)
2023	40,480	A320 (10.4)	B788 (2.2)	BCS3 (0.6)	B753 (0.2)
2024	42,922	A319 (6.4)	B748 (1.9)	CL60 (0.6)	B764 (0.2)
2025	45,363	A321 (5.9)	B752 (1.6)	DH8D (0.6)	C56X (0.2)
2026	47,804	B77L (4.4)	CRJ9 (1.4)	GLF6 (0.6)	E145 (0.2)
2027	50,246	A20N (4.2)	A388 (1.2)	A343 (0.4)	LJ45 (0.2)
2028	52,687	A359 (3.6)	A333 (1.0)	C25B (0.4)	MD11 (0.2)
2029	55,128	B763 (3.6)	A346 (1.0)	C680 (0.4)	TBM7 (0.2)
2030	57,569	B772 (3.6)	A332 (0.9)	E35L (0.4)	
2031	60,011	B789 (3.2)	GL5T (0.8)	FA7X (0.4)	
2032	62,452	B77W (2.5)	GLEX (0.8)	J328 (0.4)	

Table 1: Forecast traffic numbers which could flight plan via proposed new connectivity between 2022 and 2032 as well as aircraft types and percentage utilising this airspace

5 SUAs contained within this region of airspace are typically active during working hours Monday to Friday.
6 Aircraft types are provided as a percentage based on the data provided by the EU NM. It is assumed there will be no change in the fleet makeup from the 2019 data.

5. Proposed Changes

Justification behind the proposed Changes

5.1 To enhance the benefits of FRA within the Amsterdam UIR, MUAC have requested an additional COP, north of LONAM, be added to the Amsterdam/ London UIR interface. This additional COP will allow aircraft to fly shorter, routes increasing the efficiency of the airspace within the Amsterdam and London UIRs resulting in decreased fuel burn and CO_2 emissions.

Design Principles, evaluation to date and Options appraisal.

5.2 Previous work and documents, described in the Stage 2 documents (Ref 5-6), explained the principles we used to influence the design decisions, and each option was evaluated and appraised.

5.3 Due to the extant SUA structures within this region of the North Sea, both within Amsterdam and UK Airspace, this proposal is limited to a single design concept to provide this additional connectivity. This concept is:

- Connectivity to UK ATS Network provided through the introduction/amendment of new/extant CDRs.

5.4 A workshop between Subject Matter Experts (SMEs) from NATS and MUAC, as well as the EU NM was held on 5th May 2021 to consider how best to use this concept to provide connectivity between the new COP (RENEQ) on the Amsterdam/ London interface and the UK ATS network. This engagement led to 10 design options being proposed and discussed. Three of these design options (Options 7-9) were considered but discounted at the design phase prior to being formally evaluated against our design principles (DPs). DP evaluation further reduced our option list to a single option called Option 6- Combined options 1-5 (Connectivity to UK ATS Network provided through the introduction/amendment of new/extant CDRs). Option 6 is described below.

5.5 The "Do nothing" baseline option has been discounted as it fails to provide connectivity to the new COP introduced by MUAC (DP4), review existing connectivity between the London and Amsterdam UIRs (DP5), offers no additional benefit to current European FRA (DP6) nor provides any basis for future UK FRA operations (DP10). Furthermore, this option is contrary to the AMS and therefore does not meet the high priority DP2.

5.6 Options 1-5 Partially or did not meet the following Design Principles:

- DP4- Provides connectivity to the new reporting point
- DP5- Reviews existing upper route connectivity
- DP6- Provides a compatible interface with MUAC
- DP11- Provides a basis for future UK FRA
- DP12- Minimises operational impact to airspace users.

5.7 As such these options were not progressed.

5.8 Option 6 has been appraised in more detail; this can be found in the Stage 3 Full Airspace Change Options and Appraisal Document (Ref 8). This option is contained above FL245 and therefore requires no new Controlled Airspace (CAS) or results in any changes to low level flights.

5.9 The CAA have confirmed this as a Scaled Level 2B change as it is contained in airspace over the sea and above 20,000 ft above mean sea level.

5.10 In the unlikely event there are unexpected issues caused by this proposal, reversion to the pre-implementation state would be possible as the proposed changes does not make any changes to CAS or remove any existing ATS routes.

Proposed Changes

5.11 Option 6 proposes to introduce 5 new conditional routes; extend 3 existing routes; and to alter existing CDRs to make them bi-directional and thereby replicate existing night-time fuel saving routes (NTFSRs) so that they become available H24. This change will also make minor alterations to existing routes to enable Flight plan connectivity. As a consequence, these route changes will, subject to SUA activity within the Southern North Sea, enable improved bi-directional connectivity via the new COP (RENEQ) in addition to already established COPS.

5.12 The new and extended routes proposed (NR 1-8) as well as the NTFSRs with proposed changes are shown in Table 2 and Figure 5. Table 2 also provides details of the existing connectivity found in the Route Availability Document (RAD) for which NR1-8 will be providing an alternative routing. A comparison of the track mileage within UK airspace is included. However, these values do not provide insight into the net track mileage over the entire route. A reduction in UK track mileage might be enabled by an accompanying increase in track mileage within Dutch FRA or vice versa.

Stage 2 Design Option Update following Development Simulations

5.13 Following the stage 2 submission NATS has undertaken a Development Simulation to evaluate the proposed design. The design proposed in Stage 2 included the addition of a new waypoint, situated at the at the intersection of N866 and one of the new routes which routed between RENEQ and ROKAN. This point was originally included to allow traffic destined for the London Terminal Manoeuvring Area (LTMA) to enter the UIR via RENEQ and join N866 to route south as well as aiding air traffic procedures by allowing controllers to issue level by instructions. However, it was identified that this point raised a safety concern by producing congestion at a single point (RENEQ) with associated conflictions between traffic entering and exiting the UIR at this point. Subsequently the addition of this new point has been removed from the design and the new route ROKAN - RENEQ will be for aircraft exiting the UIR having either departed the LTMA or overflying the UK or entering the UK for overflight. The new route LONAM – LARDI will be for aircraft entering the UIR destined for the LTMA. In this configuration over congestion with associated conflictions are removed in favour of a more orderly flow of traffic.

5.14 SME input during these simulations further identified that whilst a new point in the proposed location introduced concern for its initial intended purpose, moving this point to where L7 and N866 cross (and thereby producing flight plan connection) would benefit south bound aircraft on N866 which currently plan to exit the London UIR at TOPPA. This point provides connectivity which allows earlier exit at LONAM in order to utilise Dutch FRA sooner. The proposed design is therefore updated to move the new point to facilitate this benefit as well as benefitting air traffic procedures.

Stage 2 Option	Proposed Route	Proposed Routing	Alternate existing route	Track mileage comparison (NM)	UK SUA Transited[7]	Remarks
1	NR1	RENEQ - ASKAM	GODOS –P1 - ROLUM – P13 - ASKAM	-45.2	N/A	UP59 Route Extension To provide connectivity to EGPX FRA
			LONAM – L7 - ASKAM	-12.4		
1	NR2	RENEQ - NR2 - PELET - P58 - ODMOS	GODOS - P1 – GIGUL - N44 - ODMOS	-38.7	N/A	P58 Route Extension To provide connectivity to EGPX FRA
			LONAM - L7 PELET - P58 - ODMOS	-11.6		
2	NR3	RENEQ - NR3 - ROBEM	GODOS - P1 - ROKAN - M982 - ROBEM	-11.3	EGD-323A EGD-323M EGD-323N EGD-323P	New Route P38 To provide connectivity to EGPX FRA.
2	NR4	RENEQ - NATEB	GODOS - M981 - NATEB	+1.6	EGD-323A EGD-323M EGD-323N EGD-323P	Y96 Route Extension. For overflights and ScTMA arrivals and departures Whilst this route produces a small increase in track mileage within the London UIR it reduces overall track mileage in the Amsterdam UIR providing a net benefit.
			LONAM – N610 - NATEB	+1.7		
3	NR5	RENEQ – ROVNI	ROPAL - UL975 - ROVNI	-12.7	EGD-323D EGD-323E	New Route P39. Bi-directional for aircraft arriving and departing Manchester/ Midland Group airfields and Dublin.
4/4a	NR6	RENEQ – ROKAN - ADGEG	TIPAN - UM185 - ADGEG	-20.4	EGD-323E between ADGEG and ROKAN	New Route P40. Bi-directional for aircraft overflying the UK via UM185 and P144 or exiting the London UIR following departure from the LTMA via M604.
4/4a	NR7	ROKAN - LATMU	No existing connectivity	N/a	EGD-323E	New Route P48 To provide connection to P40 at ROKAN and onward connectivity at the UIR interface
4	NR8	LONAM - LARDI	No existing connectivity	N/a	N/A	New Route P43 Unidirectional for aircraft entering the London UIR providing additional connectivity at the UIR interface
5	M982	Make Bi-directional	N/a	N/a	EGD-323E EGD-323D EGD-323C EGD-323B EGD-323A	To emulate NTFSRs and provide flight plan connection and bi-directional use on a H24 basis subject to SUA activity
5	N97					
5	P1					
5	M981					

Table 2: Comparison between the existing SRD routes and the proposed additional routes this ACP seeks to implement.

7 SUAs activity east of the UIR boundary within the Dutch UIR could impact the availability of the proposed and extended CDRs..

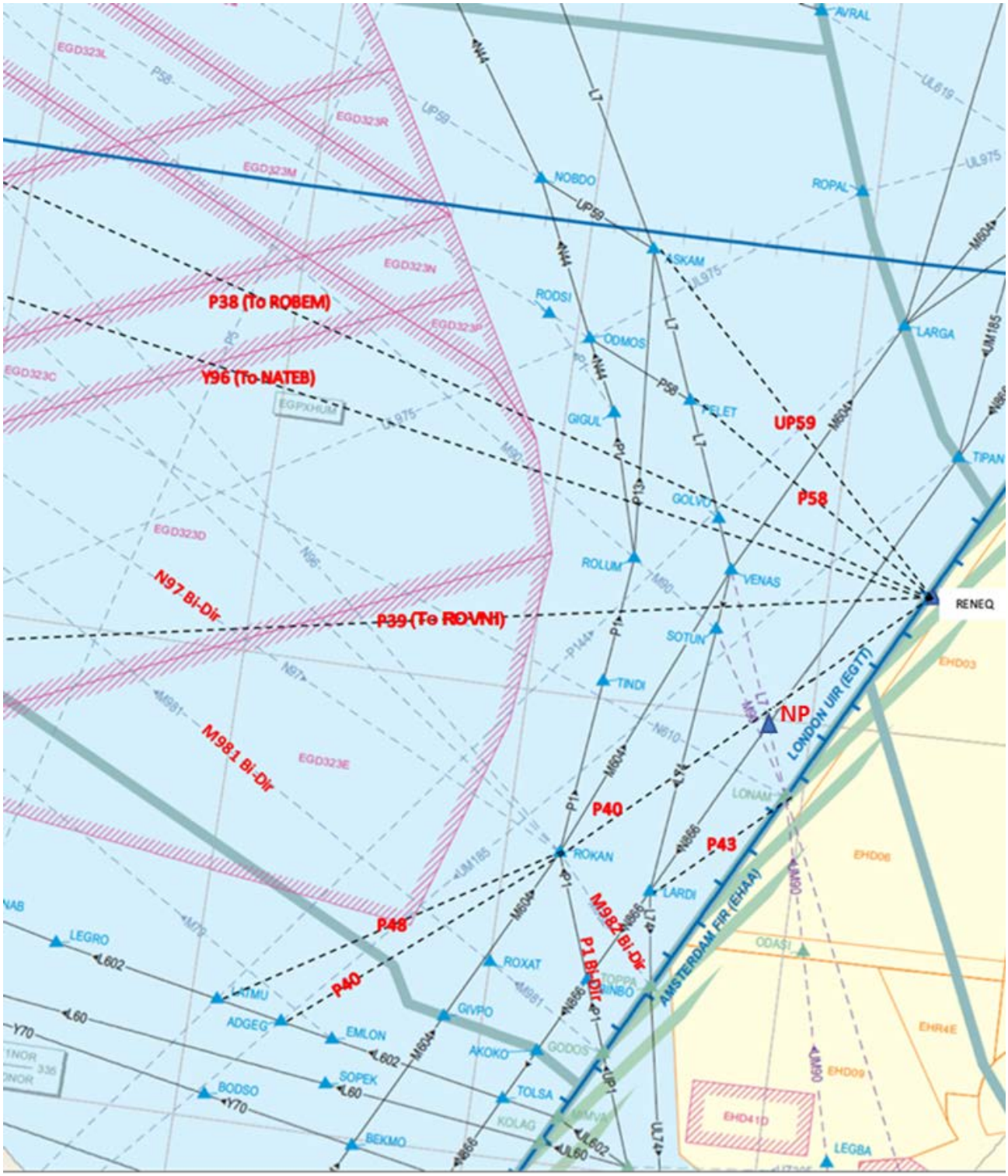

Figure 5: European AIS Databse upper airspace map showing the proposed revised airspace structure at the UK/ Amsterdam UIR interface.

5.15 All routes will be contained within the upper airspace, above FL245.

5.16 The track mileage savings for three popular city pairs are shown in Table 3.

Route	Estimated Track mileage (NM)	Estimated reduction in Track mileage (NM) from baseline
EGLL to ESSA	831.5	0.6
EKCH to EGCC	566.2	5.3
KORD to EDDF	3777.2	2.5

Table 3: Track mileage savings for three popular city pairs impacted by this ACP

Benefits

5.17 It is expected that by implementing the changes outlined within this ACP there will be an environmental benefit resulting from a net reduction in CO_2 emissions per flight as a result of more direct trajectories across the entire flight within upper airspace. By providing additional connectivity at the interface the benefits of Dutch FRA will be enhanced whilst providing an improved distribution of aircraft at the UIR interface. This will increase airspace capacity and safety whilst helping to prepare the UK airspace and NATS Air Traffic controllers (ATCOs) for future FRA deployments.

Dependencies

5.18 The implementation of these changes is dependent on close collaboration with MUAC to co-ordinate the necessary changes across international airspace boundaries in order to ensure successful delivery.

6. Environmental Impacts

Environmental Assessments

6.1 A comparison of the track mileage within UK airspace is included for the amended routes in Table 2. However, these values do not provide insight into the net track mileage over the entire route. A reduction in UK track mileage might be enabled by an accompanying increase in track mileage within the Amsterdam FRA or vice versa. The track mileage savings for three popular city pairs are shown in Table 3.

6.2 Aircraft will be on trajectories defined by their FRA entry/exit point as well as being impacted by any applicable SUA activity. Owing to the large number of possible route combinations, it would not be proportional to attempt to quantify the potential mileage savings for every flight. Fuel burn and CO_2 emissions are proportional to the actual distance an aircraft flew. Any reduction in track mileage will have a corresponding reduction in fuel burn and CO_2 emissions. It would not be of benefit to stakeholders to provide fuel and CO_2 savings for the UK portion alone as this could provide a distorted figure of the overall benefit. This figure would provide no indication of any benefit or disbenefit resulting from the change in track mileage within the Dutch UIR.

6.3 In line with CAP 1616 guidance on proportionality for a change with no negative fuel or CO_2 impact, this saving has not been quantified. However, any impact on fuel and CO_2 is proportional to the track mileage saving, and therefore a reduction in track mileage will have a corresponding reduction in fuel burn and CO_2 emissions.

6.4 In line with CAP1616 requirements for a Level 2B change, a WebTAG analysis has not been provided as this change will not lead to a fuel or CO_2 disbenefit. This is assured as this change provides options in addition to existing routings and operators will be free to plan the most efficient route available to them.

7. Consultation Timeframe

7.1 This ACP is targeting an implementation date of AIRAC 12/2022, 1st December 2022. This date has been coordinated with MUAC to align the associated cross border activities. MUAC have requested that this

change is implemented over the winter months limiting this change to the December 2022 or March 2023 AIRAC cycles. However, there is no capacity within the March 2023 AIRAC cycle to accommodate this change owing to the planned implementation of West airspace changes (ACP-2017/020 and ACP-2019/012). .

7.2 Since the impact to stakeholders will be broadly positive and only affecting aircraft operators and ANSPs, we contend a 6-week period is sufficient and proportionate for this consultation. This change will provide significant fuel savings to our customers along with the corresponding environmental benefits.

7.3 Subject to passing the consult gateway, NATS intend to commence the consultation on Thursday 3rd March 2022 and subsequently close it on Thursday 14th April.

7.4 At the end of the requested 6-week consultation period the responses will be analysed and themed; any late responses may not be included in the subsequent analysis.

7.5 A response from any individual person or organisation is welcomed but the targeted stakeholders are listed in Annex A.

8. Consultation Participation

How to Respond

8.1 This consultation is being conducted by NATS. The CAA's Safety and Airspace Regulation Group (SARG) will oversee the consultation and ensure that it adheres to the CAP1616 process and government guidelines.

8.2 All relevant material will be available from the CAA Airspace change portal and stakeholders will be able to upload a response through a consultation feedback questionnaire.

8.3 Please note that when submitting feedback, you will be asked to provide the following information:

- Your name, and your role if you are responding on behalf of an organisation
- Your contact details
- A feedback category: SUPPORT NO COMMENT AMBIVALENT OBJECT
- Your level of support for the following aspects of this proposal:
- Option 6- Combined options 1-5
- Your general feedback comments with an opportunity to provide more detailed comments on the above specific aspects. There will also be the opportunity to upload a document containing further information relevant to your feedback.

8.4 You may upload a document as part of your response.

8.5 All responses will be analysed, with any common themes extracted and summarised. NATS will actively monitor the consultation portal and will respond to any queries, alongside including any generic queries under a FAQ section. All responses will be passed on to the CAA.

What happens with the responses, and what happens next?

8.6 Responses are made via the CAA consultation portal. Should any responses contain commercially sensitive data then we would expect the CAA to redact that information as part of the CAA's moderating practice.

8.7 On completion of the consultation, we will analyse the feedback and produce a feedback report, summarising themes arising from the feedback, alongside NATS' response to any issues raised. The feedback report will be uploaded onto the airspace change portal. Any new requirements identified will be considered in the on-going design process, leading to the production of a formal ACP. The ACP will detail the final design which it is expected will be submitted, in June 2022, and make reference to changes that have been made to take account of consultation feedback. If significant changes have to be made to the proposed design as a result of feedback from consultation, a further period of consultation on the updated design may be necessary.

9. Reversion Statement

9.1 In the unlikely event that there are unexpected issues caused by this proposal, reversion to the pre-implementation state would be possible as the proposed changes do not introduce any new CAS or interfere with any current ATS routings.

10. Next Steps

10.1 A single design concept has led to a single design option being proposed for this airspace design as described in section 5.3.

10.2 Please give your feedback to this proposal via the CAA Airspace change portal. Once consultation is concluded and all feedback is collated, the proposal will be updated accordingly, and an ACP submitted to the CAA. If this proposal is approved by the CAA the proposed changes will be implemented 1st December 2022 (AIRAC 12/2022).

11. Annex A – List of Stakeholders

	Stakeholder
NATMAC	Airlines UK
	British Airline Pilots Association (BALPA)
	British Airways (BA)
	Low Fare Airlines
	Heavy Airlines
	Airspace 4 All
	MoD Via Defence Airspace and Air Traffic Management (DAATM)
	Guild of Air Traffic Controllers (GATCO)
	General Aviation Alliance (GAA)
	Aviation Environment Federation (AEF)
	Aircraft Owners and Pilot Association
	Association of Remotely Piloted Aircraft Systems (ARPAS)
	British Business and General Aviation Association (BBGA)
ANSP	NATS[8]
	MUAC
Airlines	KLM
	Ryan Air
	Lufthansa
	Delta Airways
	Scandinavian Airlines
	British Airways
	Norwegian Air International
	EasyJet
	United Airlines
	Norwegian Air Shuttle

8 As the UK ANSP NATS are listed as a Stakeholder. However, NATS are the sponsor of this change and are not included in external engagement.

12. Annex B – Glossary

ACP	Airspace Change Proposal
AIRAC	Aeronautical information regulation and control
ANSP	Air Navigation Service Provider
ATCO	Air Traffic Controller
ATS	Air Traffic Services
CAA	Civil Aviation Authority
CAP1616	Civil Aviation Publication 1616: Airspace change: Guidance on the regulatory process for changing the notified airspace design and planned and permanent redistribution of air traffic, and on providing airspace information
CAS	Controlled Airspace
CDR	Conditional Route
CO_2	Carbon Dioxide
COP	Coordination/ crossing/ point
DAATM	Defence Airspace and Air Traffic Management
DP	Design Principle
EU NM	European Union Network Manager
FIR	Flight Information Region
FL	Flight Level
FRA	Free Route airspace
FUA	Flexible Use Airspace
ICARD	The ICAO system to reserve and amend 5LNCs
Kg	kilogram
MoD	Ministry of Defence
MUAC	Maastricht Upper Area Control
NAS	National Airspace System
NAT	North Atlantic Tracks
NATMAC	National Air Traffic Management Advisory Committee
NATS	UK Air Navigation Service Provider
NERL	NATS En-Route Ltd
NM	Nautical Mile
NTFSR	Night-Time Fuel Saving Route
OSEP	Operational Service Enhancements Project
RAD	Route Availability Document

SARG	CAA Safety and Airspace Regulation Group
SME	Subject Matter Expert
SUA	Special Use Airspace
T	Metric Tonne (1000 kg)
UIR	Upper Flight Information Region

End of document