NORGES LUFTSPORTFORBUND

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Vår ref.: 2025/825-15
Dato: 26. august 2025

Avinor Flysikring AS
E-post: post@avinor.no

Høringssvar: Værnes TWR/APP – endring i luftromsorganiseringen (Værnes CTR og TMA)

1 – Innledning og oppsummering

Norges Luftsportforbund (NLF) viser til høringsbrev fra Avinor Flysikring AS datert 5. juni 2025 vedrørende utkast til endringer i luftromsorganiseringen for Værnes kontrollsone (CTR) og Værnes terminalområde (TMA). NLF viser videre til oppdatert høringsbrev av 28. juli 2025 og takker for forlenget høringsfrist.

NLFs støtter i utgangspunktet luftromsendringer som vil muliggjøre kortere instrumentinnflygings-prosedyrer, med påfølgende miljø- og kostnadsgevinster. For NLF er det imidlertid viktig at slike endringer skjer på en måte som ivaretar enhetlige luftromsløsninger og som sikrer den alminnelige ferdselen luftrommet. Dette omfatter behørig tilgang til luftrom for luftromsbrukere som av ulike årsaker ikke kan benytte luftrom klasse C på en hensiktsmessig måte, herunder utøvere av paragliding, hanggliding og speedgliding (HPS).

NLF foreslår derfor at luftromsendringen utredes på nytt med henblikk på en samtidig omklassifisering av Værnes CTR til luftromsklasse D. Videre foreslår NLF at det gjøres en ny vurdering av TMA-ens nedre begrensning – alternativt vurderes dynamisk rekonfigurerbar luftromssektor. NLF redegjør nærmere for forslagene nedenfor.

2 – Værnes CTR

Som Avinor Flysikring er kjent med, har NLFs medlemsklubber et viktig regionalt luftsportsanlegg for HPS ved Forbord, nord for Værnes. Utvidelsen av kontrollsonen er isolert sett marginal, men når nåværende luftromsproblematikk sees i sammenheng med utvidelsen av både kontrollsone og terminalområde, blir luftromstilgangen vesentlig vanskeliggjort.

NLF foreslår derfor en mer helhetlig løsning som ivaretar behovene til annen trafikk på en mer balansert måte. Et sentralt tiltak som etter NLFs syn bør utredes før endringer iverksettes for øvrig, er omklassifisering av kontrollsonen fra klasse C til D. Forslaget støtter seg på følgende argumenter:

- **Enhetlige løsninger**: Så vidt NLF har kunnet bringe på det rene, er *alle* kontrollsoner i Norge bortsett fra Værnes luftrom klassifisert som luftrom klasse D. Valget av luftromsklasse C for Værnes har som kjent historiske årsaker og har sammenheng med en opphevet bestemmelse i den

forrige luftromsforskriften.[1] NLF kan ikke se at det er gode grunner til å ha en avvikende løsning for Værnes, tatt i betraktning at sågar Oslo CTR er klassifisert som klasse D. Dagens løsning gir unødvendig kompleksitet, med mulige sikkerhetsmessige og fleksibilitetsmessige ulemper.

- **Flysikkerhetsbetraktninger**: Som NLF vil redegjøre nærmere for nedenfor, er det klare holdepunkter for at luftrom klasse D er en *tryggere* løsning for kontrollsoner med blandet trafikk enn luftrom klasse C. NLF viser til analyse foretatt av NATS i forbindelse med luftromsendringer i nærheten av Heathrow ved London, Storbritannia.

- **Fleksibilitet:** Av grunner som NATS-studien utdyper, gir luftrom klasse D større fleksibilitet. Det er dessuten NLFs vurdering at luftrom klasse D vil kunne gi noe større handlingsrom med hensyn til arbeidet med å finne en løsning vedrørende luftrommet over HPS-anlegget ved Forbord.

NATS-rapporten om luftromsendringen over Heathrow følger vedlagt, men noen nøkkelpunkter kan oppsummeres her:

Fordeler med klasse D:

1. Åpner for både IFR, SVFR og VFR-trafikk på en praktisk måte:
    - IFR og SVFR separeres av ATC.
    - VFR-trafikk får trafikkinfo, men ikke separasjon – gir mer fleksibilitet.

2. Redusert arbeidsbelastning for flygelederne:
    - Klasse D krever ikke separasjon mellom IFR og VFR, kun trafikkinfo.
    - Gir flygelederne mulighet til å bruke profesjonelt skjønn for å integrere trafikk.

3. Bedre tilgang for VFR-trafikk:
    - Økt kapasitet utenfor indre kontrollområde.
    - Mindre ventetid for helikoptre og allmennfly.

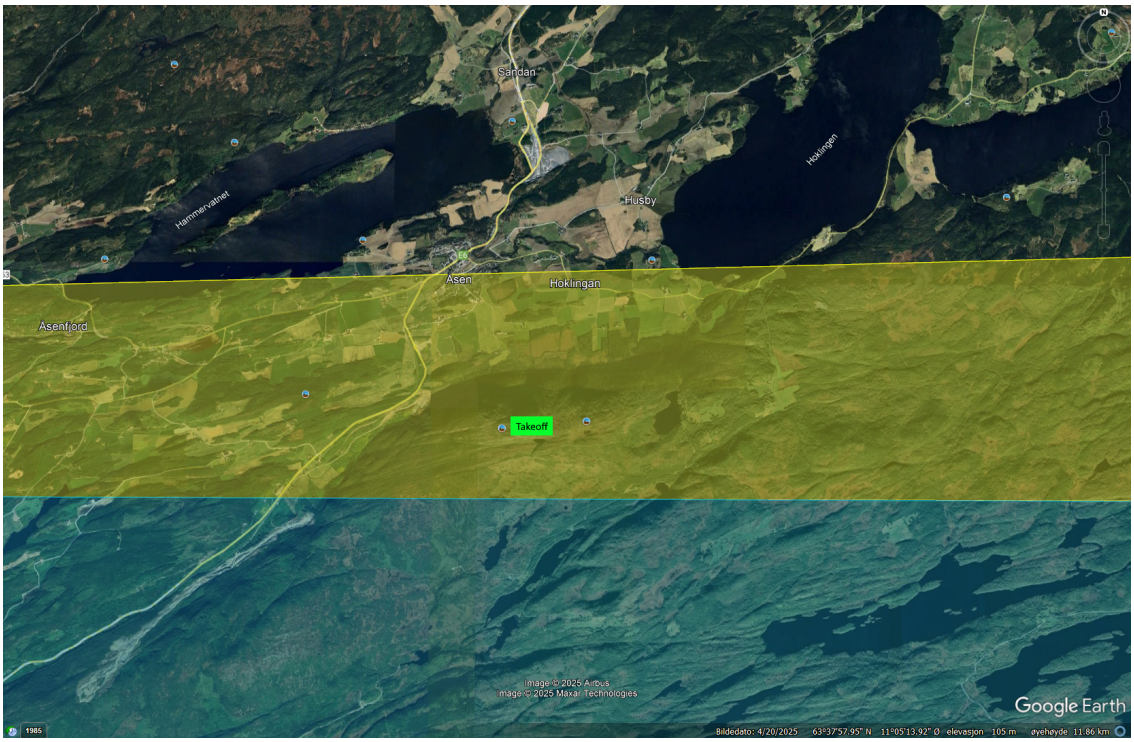
4. Miljømessige gevinster:
    - Mindre «holding» for helikoptre → redusert støy, drivstofforbruk og utslipp.

5. Harmonisering med nærliggende luftrom
    - London City CTR var allerede klasse D → reduserer risiko for misforståelser. Dette er en klar parallell til at Ørland CTR er klasse D og ligger tett på Værnes CTR.

<u>3 – Værnes TMA</u>

Utvidelsene av Værnes TMA med høyde 2 500 fot framstår ved første øyekast som relativt beskjeden. Dessverre skaper den store problemer for luftromstilgang for HPS, herunder ved startstedet Stokkvola under foreslått TMA1 (se skisse nedenfor).

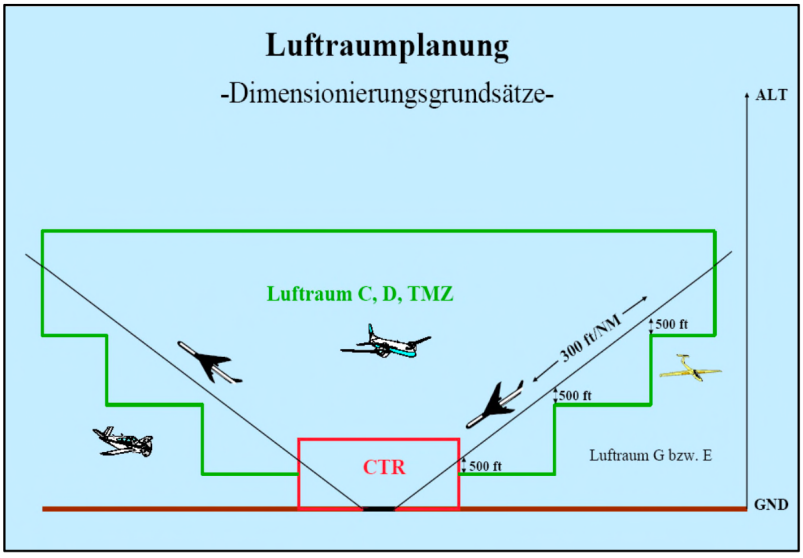
[1] Forskrift 15. mai 2009 nr. 523 om luftromsorganisering § 14 andre ledd bokstav d, jf. § 19 femte ledd, se https://lovdata.no/forskrift/2009-05-15-523.



Figur 1 Avgangssted, Stokkvola HPS (ligger under foreslått TMA1 med høydebegrensning 2 500 fot eller 762 meter.

Luftromstilgangen for HPS blir også vesentlig påvirket av utvidelsen med nedre grense på 3 500 fot (istedenfor opprinnelig angitt 4 500 fot). Av topografiske, geografiske og luftromsmessige grunner, finnes det ikke aktuelle alternative startsteder i nærheten. NLF vil derfor foreslå at nedre TMA-grense revurderes.

Prosedyrer og luftrom bør legges opp på en måte som gir brattest mulig gradient for TMA, slik eksempelvis det tyske samferdselsdepartementets luftromsretningslinjer pålegger.[2]



Figur 2 Krav til gradient – tysk luftrom

[2] Bundesministerium für Digitales und Verkehr, *Leitfaden zur Luftraumplanung in Deutschland*, 18. januar 2024.

Etter de tyske retningslinjene skal luftrommet utformes etter mottoet «så lite som mulig, så stort som nødvendig», ikke ulikt den norske luftromsforskriftens utgangspunkt om minste inngreps prinsipp. Selv om luftsport heller ikke i Tyskland prioriteres så høyt som militær og kommersiell luftfart mv., fastslår retningslinjene at luftsportens interesser (seilfly, paraglidere, hangglidere) *aktivt* og *begrunnet* skal vurderes i planleggingen. Slike vurderinger gir også det beste samsvar med «Strategi for småflyverksemda i Noreg» i en norsk kontekst, se strategiens s. 33. Selv om kommersiell luftfart har høyere prioritet, skal regjeringen ifølge strategien «balansere behova til dei ulike brukarane av luftrommet». Herunder skal fritidsflyging «sikrast tilgang til luftrom».

En mulig måte å balansere behovene bedre på, er å se hen til de tyske luftromsretningslinjene som fastsetter at man skal unngå overdimensjonering av kontrollområder i tid eller rom. Blant annet opprettes sektorer av TMA-er i Tyskland med HX-betegnelse, dvs. at TMA-sektorer skrus av når de ikke er i bruk. Luftromsforskriftens mulighet for dynamisk rekonfigurerbart luftrom, jf. § 7, åpner rettslig sett for liknende ordninger i norsk luftrom.

NLF deltar gjerne i en nærmere dialog om løsninger som ivaretar samtlige behov på en mest mulig balansert måte.

Med vennlig hilsen,
NORGES LUFTSPORTFORBUND

Jostein Tangen
Konst. generalsekretær

Torkell Sætervadet (sign.)
Rådgiver

1 vedlegg.

Norges Luftsportforbund (NLF) er et særforbund tilsluttet Norges idrettsforbund (NIF). Forbundet organiserer syv luftsportsgrener: Fallskjermhopping, hang- og paragliding, seilflyging, motorflyging, modellflyging, mikroflyging og flyging med varmluftballonger. De 250 tilsluttede klubbene har til sammen 18 000 medlemskap. NLFs administrasjon har i dag 13 ansatte med kontor i Oslo sentrum og på Rikssenteret for seilflyging i Elverum. For mer informasjon, se vår hjemmeside nlf.no.

NATS

Performance
through Innovation

London CTR Reclassification

Consultation Document

Version 1.0
26 September 2013

Prepared by
Bradley Taylor
Airspace Assurance

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The UK adoption of the Standardised European Rules of the Air (SERA) is driving a change in UK aviation law. This change, which came into force in Europe on December 2012, will come into force in the UK by December 2014 and will render NATS' current SVFR clearances in Class A airspace within the London CTR, non-compliant with UK aviation law.

This consultation document will set out the non-Class A airspace options available for continuing to allow SVFR clearances; it will cover the reasons why some airspace classifications options have not been put forward for consideration and will detail the NATS preferred option. The consultation seeks to solicit feedback from all stakeholders on the proposed change.

Your response will enable NATS to make the best and most informed decision possible in light of the requirement for change.

Executive Summary

The Standardised European Rules of the Air were mandated by the European Commission (EC) on 4th December 2012 (with a transition period until December 2014). This new law means that current SVFR clearances in Class A airspace within the London CTR (Control Zone) will be unlawful after December 2014. SERA states that Class A airspace shall be for the use of IFR (Instrument Flight Rules) traffic only.

Of the non-Class A controlled airspace (CAS) classifications available in the UK (B to E), Class E is discounted as it is unlawful for use in a CTR. This leaves Classes B, C and D as possible options. Safety hazard workshops, operational analysis, operational safety benefits analysis and air traffic procedures workshops were used to assess these options. The conclusion was Class D airspace was NATS preferred option.

Therefore, the change proposed is to reclassify the London CTR to Class D airspace. Controlled access will apply where necessary for VFR & SVFR (Visual Flight Rules & Special Visual Flight Rules) fixed wing flights and transiting helicopters. It is not proposed that access be reduced or increased from current levels, in any way by the proposed change.

Access to the existing Inner Area (see Figure 3) of the CTR will continue to be managed much as it is today[1], on a Prior Permission Required (PPR) basis, in the form of existing pre-notification procedures for helicopters and fixed wing flights operating in the vicinity of Heathrow. As today fixed wing SVFR transit flights without PPR would have to route around the Inner Area, e.g. via BUR NDB[2]-Ascot whilst transiting helicopters would either route around the Inner Area or cross Heathrow via the existing helicopter routes. The Class D option with the PPR Inner Area gives a solution that protects the high volumes of IFR traffic operating into and out of Heathrow, minimizes the impact on access for SVFR/VFR flights to the CTR and leaves much of today's operation unchanged.

In addition, the adoption of Class D airspace will bring commonality and simplification of ATC (Air Traffic Control) procedures and training, pilot procedures and weather minima, in line with all other UK control zones, including the adjacent London City CTR and London Gatwick CTR.

The existing Local Flying Areas (LFAs) in the London CTR will remain in place. The helicopter routes and other frequently used transit routes (such as BUR NDB-Ascot) will remain.

There will be no changes to the CTR boundaries resulting from this proposal.

The period of consultation commences on **Tuesday 1st October** and closes on **Tuesday 24th December** (a period of 12 weeks). If the proposal is approved by the CAA, implementation is expected to occur on 18th September 2014.

[1] "as today" is a term used within this document to reflect that the operation of the CTR is planned to continue as closely as possible, as it does today. Substantial differences will be highlighted in the relevant sections of the document.

[2] The BUR NDB (Non-Directional Beacon) may be removed as part of the VOR rationalisation programme however if this is the case, it will be replaced with a Visual Reference Point (VRP)

Section 1: Document Structure

1.1 Section Summary

This document has been prepared in four distinct parts. Sections 1 through 4 detail the contents of the document, introducing why the change is being made with associated assumptions, the purpose and objectives of the proposal and detailing current operations within Class A airspace. Sections 5 and 6 describe the airspace options in brief and detail how to respond to the consultation whilst Section 7 examines the proposed changes in more detail including the reasons why the other closest airspace classification was discounted. Finally, Sections 8 through 10 are the References, Glossary and Appendices.

- Section 1, *Document Structure*, details the layout of the document, explains the various sections and gives guidance on the how the reader may wish to approach the document.

- Section 2, *Introduction*, explains why the need for the change and for this consultation and lists appropriate assumptions which have been made in writing this document.

- Section 3, *The Consultation*, details the consultation's purpose and scope, including the development objectives as well as the required timing of events prior to implementation of any changes.

- Section 4, *Current Operations,* details how the London CTR is operated today as Class A airspace, putting the CTR in context of surrounding airports and the City of London and summarises the impact of the implementation on CTR operations.

- Section 5, *Option Assessment*, considers the possible airspace options in brief and summarises what will and will not change with the introduction of the UK SERA-compliant regulations, compared to the current operation (as described in Section 2).

- Section 6, *Next Steps*, details how to respond to the consultation.

- Section 7, gives the *Airspace Classification Options in Detail* with an examination of the Class C (discounted) and Class D (NATS preferred) option.

- Section 8 details the *References* used.

- Section 9 gives a *Glossary* of terms used throughout the document.

- Section 10 is the *Appendices, as follows:*
    - *Appendix A* – lists the consultation Stakeholders
    - *Appendix B* – uses the NATS "Airspace Options Justification Assessment Criteria" to assess Class B airspace (as detailed in Section 5 for Classes D & C)
    - *Appendix C* – gives the cabinet Office Code of Practice on Consultation

Section 2: Introduction

2.1 Why the Need for Change?

SERA (Commission Implementing Regulation (EU) No 923/2012 of 26 September 2012 (better known as Standardised European Rules of the Air)) represents the European embodiment of standardised ICAO (international Civil Aviation Organisation) regulations[3] and was adopted by the UK on 4th December 2012. The UK CAA (Civil Aviation Authority) has exercised the right to a 24 month period of adjustment following implementation, which makes the final deadline for implementation 4th December 2014. In practice however, the implementation of SERA is likely to take place coincident with the AIRAC (Aeronautical Information Regulation and Control) date in November 2014.

Within these new rules, which are designed to provide commonality of operation across Europe, Class A airspace (the current London CTR classification) can accommodate IFR operations only. As SVFR flights which currently use the London CTR cannot comply with IFR, either the classification of the CTR must be changed to one which can accommodate VFR and SVFR operations, or such traffic must be excluded from operations within it.

If no change is made then aircraft operations as they are today within the CTR would be deemed unlawful. As the London CTR surrounds the UK's busiest airport (Heathrow) and a significant portion of its largest city, the airspace classification needs to enable VFR and Special VFR operations.

Therefore NATS is looking to implement an option on 18th September 2014, by reclassification of the airspace, which maintains compliance with UK and European law and accommodates all current airspace users with minimal impact upon their current operations.

2.2 Assumptions

The CAA is in the process of finalising its SERA implementation proposals. As a consequence NATS has had to make assumptions regarding the UK CAA interpretation of SERA and how it is to be incorporated in revised Rules of the Air 2014, as well as other operational assumptions. These are detailed below.

- For the purposes of this consultation, the CAA's proposed provisions are referred to as 'Rules of the Air 2014'; it is acknowledged that the final title may differ;
- SERA legislation will be implemented in the UK no later than 4th December 2014;

[3] It encompasses ICAO Annex 2 "Rules of the Air" and other ICAO Standards and relevant practices (SARPs) and Procedures for Air Navigation Services (PANS). The implementing rule does not create new obligations but rather transpose already existing obligations, and standardises the way the existing ICAO obligations are implemented within the single European sky.

- The Rules of the Air 2014[4], incorporating SERA, will retain the current legislation that states that SVFR flights are exempt from the 1000ft Rule;
- The Rules of the Air 2014 will state that published routes may be notified for the purposes of being exempt from the 1000ft Rule, as per current UK law;
- The helicopter routes in the London CTR will be notified for the purposes of being exempt from the 1000ft Rule;
- The Local Flying Areas (LFA) of Denham, Fairoaks, White Waltham and Brooklands will continue to be notified for the purposes of SERA 8005 (b) (5), in order that ATC separation is not required between SVFR (Special Visual Flight Rules) flights operating within these areas.

2.2.1 Environmental Assumptions

NATS believes that the adoption of a Class D airspace classification for the London CTR should see some reduction in helicopter holding times and a consequent reduction in noise, fuel burn and emissions. However due to the unpredictable nature and cause of helicopter holding and its impact on IFR operations, NATS is unable to quantify the expected benefits

It is NATS intention to continue managing the airspace as it does at the moment.

Reference to environmental assumptions throughout the document are indicative only of a likely operational outcome as predicted by NATS operational experts.

2.3 Audience

This document has been written predominantly for a technical audience (i.e. the aviation stakeholders) however plain language and extended explanations have been given where possible to make it as accessible as possible. Therefore a baseline of current operations and detailed explanations of operating procedures have been included. These are sometimes repeated, to achieve a level of understanding and clarity within each section, for the benefit of less technically experienced stakeholders.

Hopefully all stakeholders will appreciate the difficulties of preparing a single document for a wide range of aviation technical knowledge and this will not detract from the key messages within the document.

[4] Currently in draft form with the CAA

Section 3: The Consultation

3.1 Purpose of the Consultation

The purpose of the consultation exercise is to allow stakeholders to consider the proposal and provide NATS with feedback.

At the end of the consultation NATS must demonstrate to the CAA that the best balance possible has been achieved between conflicting demands and objectives. The reason for the change is a European legislative requirement but NATS has still applied the same level of rigour as with all airspace changes in considering safety, capacity and environmental benefits impacts of the proposed change.

This consultation has been carried out in accordance with guidance provided by the Government and the CAA. (See Appendix C: Cabinet Office Code of Practice on Consultation.)

3.2 Scope of the Consultation

This consultation concerns the London CTR only (see Figure 1) and the changes to flight procedures which would result from its reclassification. The consultation is to elicit response from stakeholders specifically with respect to the airspace classification (Class D) which NATS feels is the most appropriate replacement for the current Class A airspace.

Where the opportunity arises, or the introduction of SERA rules necessitates an increase in height to either commonly used routes, helicopter routes or the LFAs, this has been considered and the details are contained within this consultation document.

The details of this consultation exercise have been agreed in principle with the CAA and meet the requirements of their airspace change process (Section 8: References 1). This includes the rationale for who should be involved in the consultation for this proposal.

A full list of all the stakeholders who have been identified for this proposal is contained in Appendix A: List of Consultees. This list is not exclusive; any group or individual not on the list, is welcome to make comment, and respond to the consultation

3.2.1 What is Not Included in this Consultation?

The consultation **does not** involve:

- a change to the vertical or lateral shape or size of the current London CTR volume;
- a change to the shape or control authority of the London City Airport CTR or CTA (Control Area);
- a change to the shape of the Inner Area of the CTR (in which prior permission is required to enter – see Figure 3);

- the introduction or removal of low level routes, helicopter routes, reporting points, holding points or Visual Reference Points (VRPs)[5];
- the lowering of any low level or helicopter routes or the LFAs.
- consultation on SERA itself nor the CAA's UK implementation proposals.

3.2.2 Aviation Stakeholders

As detailed in Appendix A: List of Consultees, groups representing the interests of both General Aviation (GA) and commercial operations within the London CTR, including the Heathrow Airport FLOPC as well as Police, medical flights and the Military are included as recipients of this consultation.

3.2.3 Non-Aviation Stakeholders

Only limited consultation with non-aviation stakeholders will be carried out on the basis that there will be little change from operations as they are today. NATS will consult with the Heathrow Airport Consultative Committee (HACC) which has representation from the local boroughs[6] within the area encompassed by the London CTR and therefore within the scope of this change.

3.3 Development Objectives

Whilst the driver for this change is the implementation of SERA legislation, NATS has taken the opportunity to review the safety, efficiency and environmental aspects of each of the possible airspace classifications. The results of this have informed the option being proposed by NATS, i.e. Class D airspace with appropriate management of traffic operating within the Inner Area of the CTR.

3.3.1 Safety

Safety is the primary concern with every airspace change which NATS proposes. Comprehensive safety assessment workshops (which have included operational experts from within NATS, the RAF, airline and helicopter pilots) have been conducted alongside statistical analyses of current and proposed operations to determine the safety benefits of each airspace classification.

3.3.2 Efficiency & Resilience

This proposed airspace change is not driven by a need to effect changes to delays to traffic operating at Heathrow or within the London CTR. Rather the change should see an improvement in the efficiency of the way IFR and VFR traffic is integrated within the CTR and should also improve operational resilience.

[5] The need to establish VRPs within the CTR will be considered in light of the consultation feedback

[6] See Section 10, Appendix A, Heathrow Airport Consultative Committee Member Organizations for a list of the boroughs included in the HACC

3.3.3 Environment

This proposed airspace change is not driven by the need to influence environmental change. The proposal will not affect the profiles of IFR flights into or out of Heathrow airport and as such noise, visual intrusion and emissions will not change as a result of altered profiles. It is anticipated that a Class D option could slightly reduce airborne holding of IFR flights, however due to the many influences which effect aircraft holding this cannot be reasonably calculated.

Similarly VFR helicopter flights are predicted, under a class D option, to have to hold less as a result of interaction with IFR traffic however the exact cause of holding for a specific flight is difficult to determine and the duration difficult to quantify.

For these reasons environmental performance is not an objective of this change.

3.4 Pre-Consultation

In order to maximise the input from this formal consultation, a pre-consultation exercise was conducted. This consisted of face to face presentations being made to:

- Heathrow Airport Consultative Committee,
- Heathrow Flight Operations Committee (FLOPC),
- the British Airline Pilots Association (BALPA)
- a small selection of representative organisations making up the users of the London CTR (including secondary aerodromes).

This last group was split into General Aviation and Commercial/Professional users (police, air charter etc.) who were presented to on different days. Feedback sought after these sessions was positive with follow up questions and answers being given to ensure that all stakeholders were fully aware of the details of the change.

The role of the pre-consultation exercise was to inform the attendees of the reason for change, to detail the various options and explain why some are unsuitable. Of the two options which NATS believed to be the most suitable, (Classes C & D), an increased level of detail was given to allow the audience to make a considered judgement, whilst at the same time explaining the reasoning for Class D being NATS preferred solution.

Since this pre-consultation exercise was conducted, safety workshops have indicated that Class D airspace, when considering the overall system and all airspace users, is safer than Class C and as a consequence NATS is presenting Class D airspace as the only option for consultation. Simulations have also been conducted in a Class D environment and have substantiated the view that a Class D CTR represents an efficient and safe environment in which to accommodate the IFR and VFR needs of Heathrow airport and the London CTR.

The pre-consultation exercise has been used to help shape the formal consultation in that it has allowed NATS an early view of people's opinions and perceptions, and has indicated where further work was required. This resulted in some of the consultees being included in the safety assurance workshops and being given a demonstration of Class D radar operations within the surrounding London City airport CTR.

3.5 Consultation and Implementation Time Line

Pre-consultation: June 2012 to Sept 2013

Consultation start date: 1st October 2013

Consultation end date: 24th December 2013
[This allows for a 12 week consultation period as agreed with CAA, and as recommended by Government guidelines (Appendix C)]

Submission of ACP (including consultation responses) to CAA: 24th January 2014

CAA decision period ends: 23rd May 2014

Submission of UKAIP change details: 30th May 2014

Pilot Awareness June – Nov 2014
[National & Local programme coordinated by CAA]

AIRAC distribution date: 10th July 2014
[Double AIRAC cycle[7]]

AIRAC effective date: 18th September 2014

3.5.1 Why Implementation for September 2014?

The SERA regulation became European law in December 2012 and the UK CAA exercised the derogation option on its implementation until December 2014. NATS intends to implement the London CTR change in September 2014 ahead of this final date, for the following reasons:

- This date coincides with other SERA related Airspace Changes within the NATS domain that allows for simple and clear messaging for NATS controllers.
- It allows for simple and clear messaging to the General Aviation community during the summer before transition.
- It allows time for the change to 'bed in' from September to November 2014 before shorter daylight hours and bad weather.
- It provides for contingency (e.g. allowing the implementation date to be rescheduled to October or November 2014 if necessary)
- It coincides with annual map publication dates (e.g. VFR & Helicopter Route Charts).

[7] It was decided to use a Double AIRAC to give the Aviation community as long a notice period as possible. This longer notice period will compliment national and local pilot awareness programmes coordinated by the CAA in June – August and will give aviation map producers greater certainty in advance of their annual or bi-annual publication schedules.

Section 4: Current Operations

4.1 Description of the Airspace

Figure 1 shows the London CTR (currently categorised as Class A airspace), bordered in red, with Heathrow airport at its centre, the London City CTR and airport to the East (currently Class D airspace) and RAF Northolt approximately 4½ nautical miles to the North. Current helicopter routes are shown as blue dashed lines, which are deemed separated[8] from Heathrow IFR inbound and outbound traffic, with the exception of H3, H9 (south of Heathrow) and H10 (east of Northolt)[9] when Heathrow is on Easterly operations. The vertical extent of the CTR is from the surface to altitude 2500ft.

In textual terms as per UKAIP EGLL AD 2.17, the London CTR is the airspace from surface to altitude 2500ft enclosed by 513611N 0004133W - 513611N 0001253W – thence clockwise by the arc of a circle radius 12 nm centred on 512812N 0002713W (Heathrow Airport) to 512013N 0001255W - 512013N 0003800W - 512104N 0004242W – thence clockwise by the arc of a circle radius 12 nm centred on 512812N 0002713W (Heathrow Airport) to 513611N 0004133W.

Figure 2 is taken from a VFR airspace chart and illustrates the positioning of the London CTR within the context of Luton airport to the North, Stansted airport to the Northeast, London City airport to the East and Gatwick to the South. Greater London is also shown in grey to the East between Heathrow and London City airports.

Figure 3 illustrates the Inner Area of the London CTR as a red shaded volume delineated by Ascot and the BUR NDB to the west then a straight line to the Iver RP (Reporting Point) to the north and an irregular shaped line following the helicopter route H10 to the north and east. The irregularly shaped H3 then delineates the south eastern and southern boundaries with a straight line from the Thorpe RP to the Ascot RP delineating the south western boundary. This area is currently promulgated via the UKAIP (UK Aeronautical Information Publication) EGLL (Heathrow airport) section and within this area helicopters landing or departing close to Heathrow, are required to obtain Prior Permission (PPR) 60 minutes before flight.

[8] Helicopter routes are 'deemed separated' as for the majority of the routes the aircraft on them maintain 3nm and 1000ft from IFR traffic and for the remainder they maintain a set altitude on a well-defined track which has historically been classed as a separated from IFR traffic, as authorised by the CAA. This historical context was set against departing aircraft with much reduced climb performance compared to today's aircraft.

[9] For a greater explanation of these routes and proposed changes to their operation, see Section 7, 7.1.8 & 7.2.9, Helicopter Routes under Class C & Class D.

With the exception of high priority aircraft i.e. Flight Priority Category A or B (as defined in CAP493 Section 1 Chapter 4, see Reference 6), flights wishing to land or depart from within the Inner Area may be subject to holding delay on the ground or outside of the Inner Area, commensurate with the current respective inbound or outbound Heathrow delays.
Figures 2 and 3 also illustrate the Local Flying Areas (LFAs), which are volumes of airspace surrounding 4 airfields and the London Heliport within the London CTR:

- Denham airfield up to at 1000ft amsl
- White Waltham airfield up to 1500ft amsl
- Fairoaks airfield up to at 1500ft amsl
- Brooklands Museum up to 1500ft amsl (only depicted on Figure 2)
- The London (Battersea) Heliport up to 1000ft amsl (only depicted in figure 3)

Aircraft within these LFAs operate under SVFR rules but without a clearance and separation provision from ATC at London Terminal Control (LTC). SVFR traffic outside the LFAs in receipt of a clearance from London Terminal Control is considered separated from SVFR traffic within the LFAs.

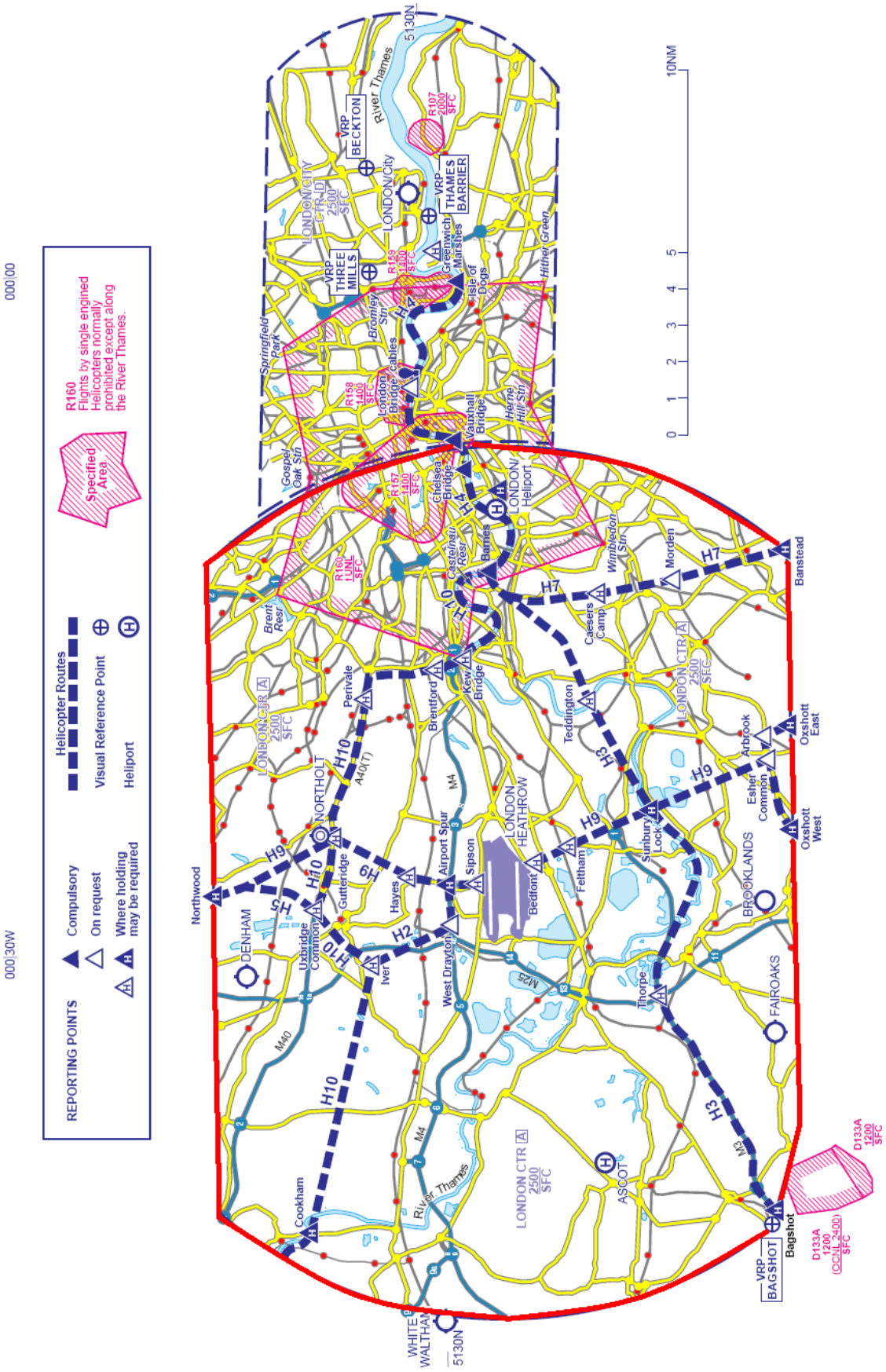

Figure 1: London CTR in Context
(with London City CTR & Helicopter Routes)

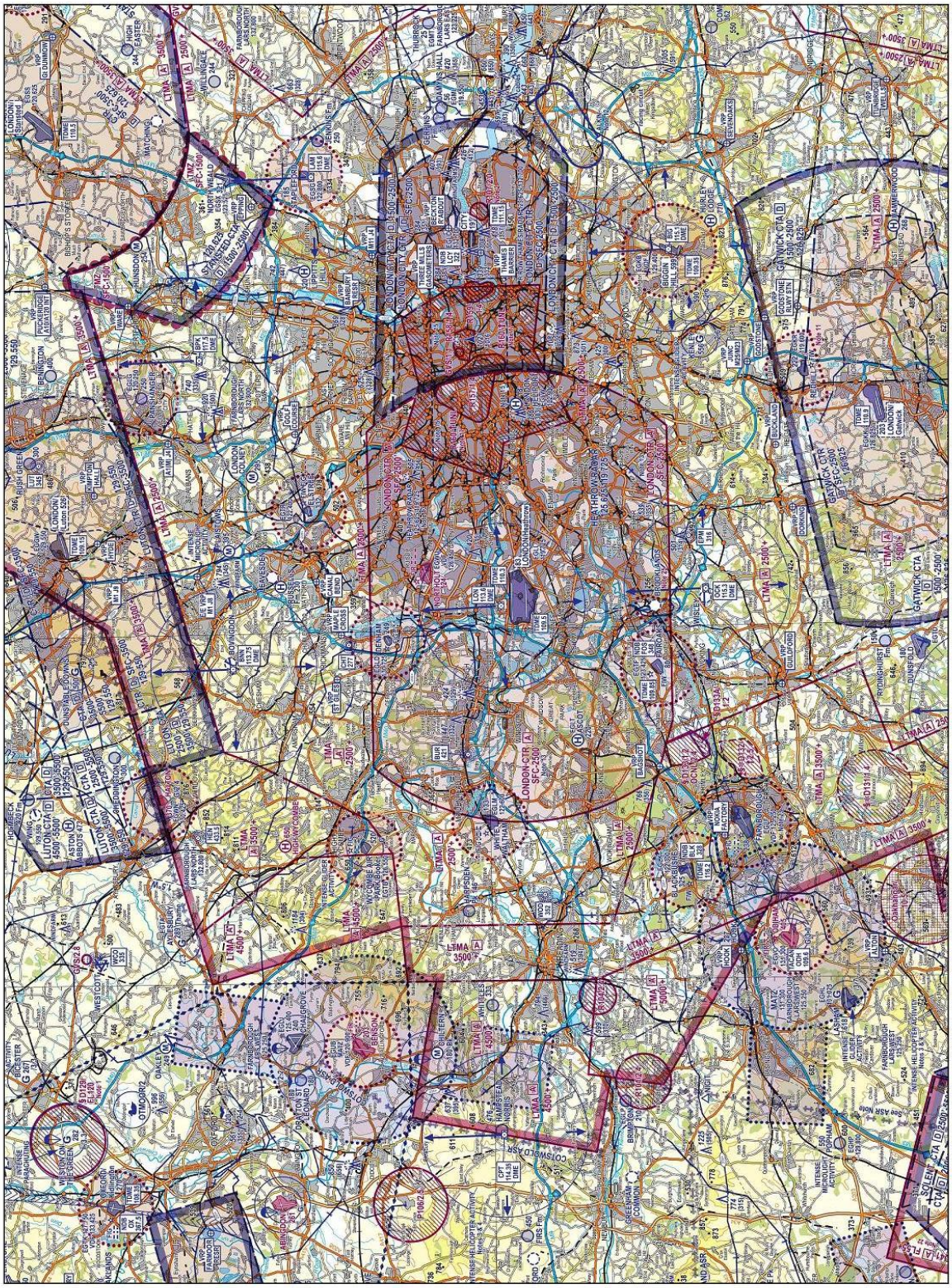

Figure 2: London CTR in Context
(with Gatwick, Stansted, London City & Luton Airports)

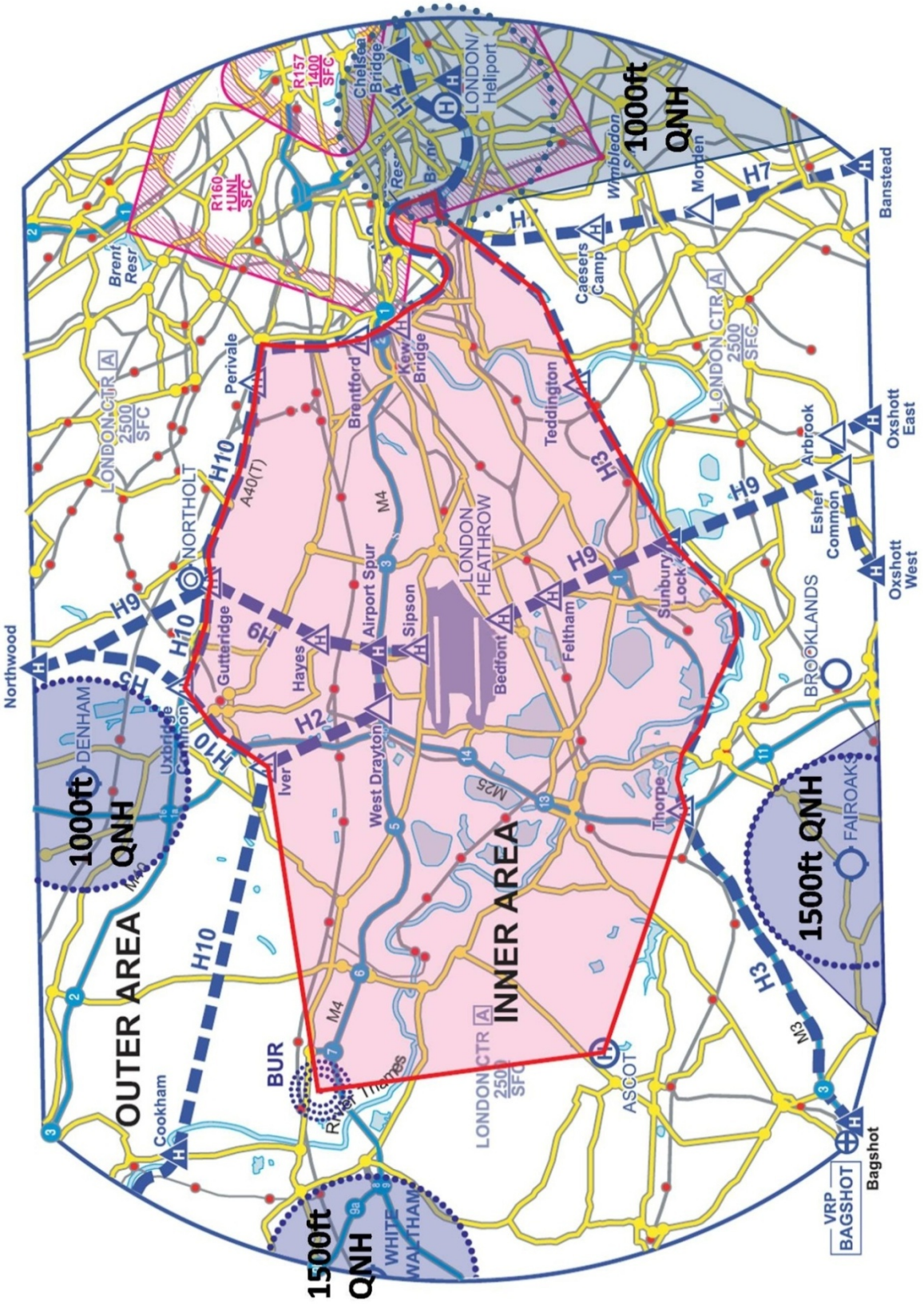

Figure 3: Inner Area of the London CTR (PPR Required) & Local Flying Areas (LFAs)

4.2 Air Traffic Operations

4.2.1 What are the current separation rules for Class A airspace?

IFR Traffic

Only IFR traffic is allowed to operate in Class A airspace. ATC must separate all IFR flights from one another.

VFR Traffic

VFR flights are not allowed to operate within Class A airspace and therefore they are not currently allowed within the London CTR under normal circumstances. Special VFR clearance is currently issued to overcome this.

SVFR Traffic

Under current UK Rules of the Air, SVFR is deemed to be a form of IFR flight. ATC must separate all SVFR flights from IFR flights and other SVFR flights.

Under SERA, SVFR is deemed to be a form of VFR flight and therefore will not be permitted in Class A airspace.

4.2.2 What is SVFR and how is it applied within the London CTR?

A Special VFR flight is a flight made at any time in a control zone which is Class A airspace or made in any other control zone in IMC; in respect of which the appropriate air traffic control unit has given permission for the flight to be made in accordance with special instructions given by that unit instead of in accordance with the Instrument Flight Rules; and in the course of which the aircraft complies with any instructions given by that unit and remains clear of cloud and with the surface in sight.

It is this definition which enables the London CTR to operate as it does today; allowing helicopter and fixed wing flights to operate. SVFR flights (and VFR flights) would have to be excluded under SERA Class A airspace rules.

4.2.3 Current Operations in the CTR

IFR Traffic

IFR traffic which has filed a flight plan either to land at or depart from Heathrow or Northolt can operate in the London CTR.

SVFR Fixed Wing Aircraft

Fixed wing traffic may be permitted to enter the London CTR on a ‘free call’ basis (i.e. no prior flight plan or approval needed) whereupon it will be given a SVFR clearance and will be subject to ATC instructions as per SVFR rules. Typically permissions will only be granted to operate outside the Inner Area due to the volume of IFR traffic arriving and departing from Heathrow.

SVFR fixed wing aircraft wishing to transit the zone may be routed to the West via Ascot and Burnham (BUR) NDB, however if they are twin engine they may on occasion be given a routing to the East, over Central London. Neither of these are promulgated routes but are approved at the discretion of ATC.

SVFR Helicopters

The helicopter routes in the London CTR (illustrated in Figure 3) are defined routes that follow line features or ground features that can be recognised from the air. Each of the routes has associated maximum altitudes that vary depending on the proximity to IFR traffic routes. With the exception of H3, H9 and H10 during easterly operations[10], SVFR helicopters on the routes are deemed to be separated from Heathrow IFR traffic.

Helicopters are allowed into the London CTR under SVFR flight rules on a 'free call' basis, however if they wish to land or depart within the Inner Area they are subject to obtaining prior permission[11]. Transiting helicopters will either route around the Inner Area or route via helicopter routes H2/H9 overhead Heathrow.

With prior permission helicopters can land and depart from private sites near to Heathrow but may be subject to holding delay on the ground or outside of the Inner Area, commensurate with the current respective inbound or outbound Heathrow delays. The helicopter routes largely form the boundary of the Inner Area (illustrated in Figure 3).

These specified routes (as well as the BUR NDB – Ascot routing) provide adequate separation from Heathrow IFR traffic, therefore ATC does not normally be pass traffic information to Heathrow IFR arrivals or departures regarding traffic on these routes.

On occasions Heathrow IFR traffic is delayed (arriving and departing) in order to deliver the required separation against landing and departing SVFR Helicopter flights within the Inner Area. Similarly, high priority flights are allowed to deviate from the designated helicopter routes and traverse the zone directly. These are subject to separation by ATC, from all other flights, including IFR and SVFR traffic. These can cause the same possible delays for IFR traffic.

4.2.4 Effects of SVFR flights operating in the London CTR

Inside the Inner Area

Currently the majority of aircraft operating in or flying through the Inner Area are helicopters; priority flights, ordinary flights transiting via the helicopter routes or landing or operating near to Heathrow. Normally, SVFR fixed wing aircraft are cleared to transit through the Inner Area only if they are inbound to Heathrow or Northolt.

Helicopters transiting through the Inner Area on the helicopter routes will wait for a clearance to cross the airport and have a minimal effect upon the IFR operations at Heathrow. However, helicopters operating near to the final approaches and departure routes can have a significant effect on IFR operations by necessitating an increased gap in the traffic of a large enough duration to accommodate the helicopter operation

[10] For a greater explanation of these routes and proposed changes to their operation, see Section 7, Helicopter Routes.
[11] see UKAIP EGLL AD 2.22 Paragraph 10, Helicopter Landings and Departures to/from sites within the London Control Zone

Outside the Inner Area

Traffic routing around the Inner Area has little or no effect on Heathrow IFR operations.

4.2.5 Current VMC Criteria within the London CTR

The current VMC (Visual Meteorological Conditions) criteria within the London CTR are numerous and complex but will be standardised in line with SERA VMC where possible when the airspace classification is changed. These are:

- Other than flying clear of cloud with the surface in sight, no minima are published for transit of the London CTR off the helicopter routes;
- 1km visibility for flights on helicopter routes;
- 1km visibility and 600ft cloud ceiling to use the London Heliport;
- 1900m visibility and 600ft cloud ceiling to depart Heathrow fixed wing SVFR;
- 2km visibility to cross or land at Heathrow via the helicopter routes;
- 3km visibility and clear of cloud with the surface in sight to use EGLD/EGLM/EGTF/EGLW Local Flying Areas;
- 6km visibility and 1000ft cloud base to cross Heathrow without disrupting IFR operations;
- 6km visibility for visual separation between helicopters on the routes
- 10km visibility and 1200ft cloud base to land at Heathrow fixed wing SVFR.

4.3 SERA Implementation within the London CTR

VFR flights are not normally allowed to operate in Class A airspace. The UK's current interpretation of a Special VFR clearance is a form of IFR flight, which enables SVFR flights to operate in the London CTR. SERA rules mandate that a SVFR flight is a VFR flight (Section 8: References 3) and as such will not be allowed in Class A airspace.

Therefore, if the helicopter flights and fixed wing transits which currently operate in the London CTR are to continue after SERA implementation, the airspace must be changed from Class A to a classification which permits VFR and SVFR flights.

Section 5: Option Assessment

5.1 Consideration of Possible Options

After consideration of the safety, operational and legal aspects of each of the seven possible airspace classifications (A to G) NATS has concluded that only class D offers a reasonable alternative to the current Class A airspace classification, when considering all airspace users.

The ICAO definitions only permit a limited number of options for airspace classification. Listed below are the available airspace classification options from A to G, along with their official ICAO definition[12], the current UK interpretation of them[13] and an explanation for NATS' assessment of their suitability.

5.1.1 Class A (Do Nothing Option)

ICAO Definition: *"IFR flights only are permitted. All flights are provided with air traffic control service and are separated from each other. Continuous air-ground voice communications are required for all flights. All flights shall be subject to ATC clearance."*

Current UK Definition: *"All operations must be conducted under Instrument Flight Rules or Special Visual Flight Rules) and are subject to ATC clearance. All flights are separated from each other by ATC".*

This is the current classification of the London CTR. Once the SERA implementing rules are in force, Class A airspace can only be used by IFR traffic. SVFR and VFR would not be permitted.

Much of the traffic which uses the London CTR consists of SVFR helicopter operations. These would be excluded in Class A under SERA and VFR is not permitted either, hence Class A has been **discounted** as a viable option for continued use in the London CTR.

5.1.2 Class E (not appropriate for CTR operations)

ICAO Definition: *"IFR and VFR flights are permitted. IFR flights are provided with air traffic control service and are separated from other IFR flights. All flights receive traffic information, as far as is practical. Continuous air-ground voice communications are required for IFR flights. A speed limitation of 250kts IAS applies to all flights below 3,050m (10,000ft) AMSL (Above Mean Sea Level), except where approved by the competent authority for aircraft types, which for technical or safety reasons, cannot maintain this speed. All IFR flights shall be subject to ATC clearance. Class E shall not be used for control zones."*

[12] Definition from ICAO Annex 11/SERA.6001
[13] CAA Publication: CAP 493 Manual of Air Traffic Services, Part 1. July 2013, Section 1, Chapter 2, Page 1.

Current UK Definition: *"Operations may be conducted under IFR, SVFR, or VFR. Aircraft operating under IFR and SVFR are separated from each other, and are subject to ATC clearance. Flights under VFR are not subject to ATC clearance. As far as is practical, traffic information is given to all flights in respect of VFR flights".*

When the SERA implementing rule comes into force it states that, 'Class E shall not be used for control zones'. For this reason NATS has **discounted** Class E as an option for the London CTR.

5.1.3 Class F (not appropriate for CTR operations)

ICAO Definition: *"IFR and VFR flights are permitted. All participating IFR flights receive an air traffic advisory service and all flights receive flight information service if requested. Continuous air-ground voice communications are required for IFR flights participating in the advisory service and all IFR flights shall be capable of establishing air-ground voice communications. A speed limitation of 250kts IAS applies to all flights below 3,050m (10,000ft) AMSL, except where approved by the competent authority for aircraft types, which for technical or safety reasons, cannot maintain this speed. ATC clearance is not required (Implementation of Class F shall be considered as a temporary measure until such time as it can be replaced by alternative classification)."*

Current UK Definition: *"Operations may be conducted under IFR or VFR. ATC separation will be provided, so far as practical, to aircraft operating under IFR. Traffic Information may be given as far as is practical in respect of other flights".*

The SERA regulations state that for Class F airspace, 'ATC clearance is not required' and 'Implementation of Class F shall be considered as a temporary measure until such time as it can be replaced by alternative classification'. As there is a need to retain a known and controlled traffic environment within the London CTR and as this change needs to be permanent, this classification has been **discounted** by NATS.

5.1.4 Class G (not appropriate for CTR operations)

ICAO Definition: *"IFR and VFR flights are permitted and receive flight information service if requested. All IFR flights shall be capable of establishing air-ground voice communications. A speed limitation of 250kts IAS (Indicated Airspeed) applies to all flights below 3,050m (10,000ft) AMSL, except where approved by the competent authority for aircraft types, which for technical or safety reasons, cannot maintain this speed. ATC clearance is not required."*

Current UK Definition: "Operations may be conducted under IFR or VFR. ATC separation is not provided. Traffic Information may be given as far as is practical in respect of other flights".

The SERA regulations state that for Class G airspace, 'ATC clearance is not required'. As there is a need to retain a known and controlled traffic environment within the London CTR, this classification has been **discounted** by NATS.

5.1.5 Class B (discounted option)

ICAO Definition: *"IFR and VFR flights are permitted. All flights are provided with air traffic control service and are separated from each other. Continuous air-ground voice communications are required for all flights. All flights shall be subject to ATC clearance."*

Current UK Definition: *"Operations may be conducted under IFR, SVFR, or Visual flight rules (VFR). All aircraft are subject to ATC clearance. All flights are separated from each other by ATC".*

Unlike Class A airspace, Class B will allow entry for VFR and SVFR flights.

Within Class B airspace under SERA all types of flights must be separated from one another including VFR/VFR. Standard separation within the EGLL CTR is 1000ft vertically and/or 3nm radar surveillance separation horizontally, or other separations approved by CAA. The workload created by having to separate all aircraft from one another (being the same as it is today under Class A) would therefore see no improvement over today's operation.

SERA Rule 5005 (f) (1) mandates that VFR aircraft over a congested area (i.e., London) shall not be flown at a height less than 1000ft above the highest obstacle within a radius of 600m from the aircraft. The current UK exemption on which the CAA is consulting, will allow VFR flights on designated routes and SVFR flights on and off-route, to fly exempt from this rule.

However, in many off-route areas over London (e.g. the London Heliport LFA and frequently used routings to the north), VFR helicopters will be legally obliged to maintain 1000ft separation above obstacles. This could result in these aircraft coming to within 1000ft vertically and/or 3nm laterally of IFR traffic descending into and climbing out of Heathrow and London City airport – which would be in breach of the required standard separation between VFR and IFR traffic in Class B airspace.

SVFR flights are planned to be exempt from the 1000ft rule (as per the CAA SERA consultation) both on and off-route and so would not be affected by this. However, in VMC conditions aircraft are expected to operate VFR and when off-route they would be subject to the 1000ft rule and the limitations which this imposes. To climb and avoid these obstacles would involve the VFR aircraft waiting for a gap in the IFR traffic in order to fly higher to clear the obstacle or the IFR traffic being delayed to create a gap large enough for the VFR aircraft to complete its operation. The first of these would be likely to subject the VFR traffic to a very long delay whilst the second option would subject the IFR traffic to delay which, if the aircraft were a high priority helicopter operating on the Heathrow final approach path for an indeterminate time, could prove extremely disruptive. As neither of these options is desirable, it would be highly likely that helicopter operations would be restricted to the helicopter routes for a significant portion of the time, unlike today.

Additionally, the adjoining London City CTR would create a situation where VFR aircraft would be required to be separated from one another in the London CTR but not in the London City CTR, which will lead to operational anomalies and could lead to pilot and controller confusion.

For these reasons Class B has been **discounted** as a viable option for use in the London CTR. (A detailed assessment for the suitability of the Class B airspace option is in Appendix B: Class B Option (discounted)).

5.1.6 Class C (discounted option)

ICAO Definition: *"IFR and VFR flights are permitted. All flights are provided with air traffic control service and IFR flights are separated from other IFR flights and from VFR flights. VFR flights are separated from IFR flights and receive traffic information in respect of other VFR flights and traffic avoidance advice on request. Continuous air-ground voice communications are required for all flights. For VFR flights a speed limitation of 250kts indicated airspeed applies below 3,050m (10,000ft) AMSL, except where approved by the competent authority for aircraft types, which for technical or safety reasons, cannot maintain this speed. All flights shall be subject to ATC clearance."*

Current UK Definition: *"Operations may be conducted under IFR, SVFR, or VFR. All flights are subject to ATC clearance. Aircraft operating under IFR and SVFR are separated from each other and from flights operating under VFR. Flights operating under VFR are given traffic information in respect of other VFR flights".*

After Class D, the most likely option for reclassification was considered to be Class C, however safety workshops conducted by NATS illustrated that a change to Class C would have several disbenefits and could be less safe than Class D, when considering all airspace users.

Additionally, Class C would not allow off-route VFR helicopter traffic to comply with the 1000ft obstacle clearance rule (remaining 1000ft above obstacles within 600 meters) whist at the same time maintaining separation of 1000ft vertically from IFR traffic. This could force all VFR traffic to fly on the 'deemed separated' helicopter routes and could cause congestion in volumes not seen today and unlikely under Class D.

It would also give a disparity between the London CTR classification and that of the adjoining London City CTR. The opportunity for misapplication of the separation rules at the boundary or the issue of an upgrade of service from VFR to SVFR/IFR changing the separation standards at the boundary is deemed to represent a significant risk.

Additionally, the requirement to issue traffic information to VFR flights against one another whilst at the same time delivering standard separation for IFR and VFR flights is likely to create a workload increase which is deemed unacceptable by controllers. The result would be a requirement to restrict the entry of VFR traffic into the CTR and not just into the Inner Area.

Finally, the application of Class C airspace will not deliver a benefit in capacity, delay or Heathrow's resilience to helicopter operations or unusual aerial activity; it will not reduce airborne or ground holding for either IFR or VFR helicopter traffic, which would be a benefit in the case of a change to Class D airspace.

For these reasons NATS operational and safety experts have deemed that Class C airspace, when considering all airspace users, is likely to be less safe than Class D airspace and will deliver no benefits over today's Class A operation, whereas Class D may deliver a small capacity, delay and environmental benefit.

For a detailed explanation of the reasons for **discounting** Class C airspace, please see Section 7.1 Class C Option (discounted).

5.1.7 Class D (preferred option)

ICAO Definition: *"IFR and VFR flights are permitted and all flights are provided with air traffic control service. IFR flights are separated from other IFR flights, receive traffic information in respect of VFR flights and traffic avoidance advice on request. VFR flights receive traffic information in respect of all other flights and traffic avoidance advice on request. Continuous air-ground voice communications are required for all flights and a speed limitation of 250 kts IAS applies to all flights below 3,050 m (10,000 ft) AMSL, except where approved by the competent authority for aircraft types, which for technical or safety reasons, cannot maintain this speed. All flights shall be subject to ATC clearance."*

Current UK Definition: *"Operations may be conducted under IFR, SVFR, or VFR. All flights are subject to ATC clearance. Aircraft operating under IFR and SVFR are separated from each other, and are given traffic information in respect of VFR flights. Flights operating under VFR are given traffic information in respect of all other flights".*

Allowing ATC to exercise an element of expert judgement rather than having to apply a blanket application of standard separation should enable controllers to clear VFR helicopters into the Inner Area to operate in the vicinity of Heathrow with less disruption to IFR traffic. This should deliver a small reduction in delay, ground holding and airborne holding for both IFR and VFR flights.

A significant safety benefit is currently derived from the carriage of Mode-S transponders in the airspace around Heathrow due to the intensity of IFR traffic and the enhancement to TCAS that Mode-S accuracy delivers. Therefore the NATS proposal, post reclassification, is to maintain the current transponder carriage requirement by notifying the London CTR as a Mode-S Transponder Mandatory Zone (TMZ).

Off-route VFR operations will still be able to take place in central London, obeying the 1000ft obstacle clearance rule whilst remaining adequately deconflicted (whilst not separated) from IFR traffic. Similarly, the ability to pass traffic information on VFR flights to IFR and SVFR should result in a small reduction in controller workload with a commensurate ability to increase the access for GA VFR flights into the CTR, notably outside the Inner Area of the CTR.

VFR flights operating on helicopter routes H3 and H10 will be able to operate without delay caused by Heathrow departures during easterly operations.

Both NATS in general and many of the controllers who manage the London CTR are already highly experienced at safely managing Class D Control Zones, which cannot be said of Class C airspace, the majority of which in the UK lies above FL195. Having the same classification within the adjacent London and London City Control Zones reduces the chances of misapplication of separation standards, due to pilot or controller confusion.

For these reasons NATS operational and safety experts have deemed that Class D airspace is likely to be the safest option assessed, and should deliver small capacity, delay and environmental benefits over today's Class A operation.

For a detailed explanation of NATS' reasons for finding Class D airspace, when considering the overall system and all airspace users, the **most appropriate** airspace classification for the London CTR, see the following Section, 7.2 Class D Option (NATS preferred).

5.2 Summary of the Preferred (Class D) Option

5.2.1 What IS NOT going to change?

- IFR/IFR ATC Separation or Wake Turbulence Separation;
- Ground operations at Heathrow Airport;
- IFR operations, other than reducing the effect of helicopter operations on Heathrow service provision and delays;
- The provision of a dedicated controller for VFR and SVFR service provision within the combined London CTR & London City CTR/CTA;
- LFAs and Northolt RMA to be retained;
- Helicopter routes (apart from increase in height on two routes);
- BUR NDB – Ascot thoroughfare (apart from increase in height);
- Off-route operations at the London Heliport (apart from an increase in height);
- The dimensions of the Inner Area of the London CTR;
- Operations within the London City CTR/CTA;
- Class A Mode S Transponder requirement to be retained following reclassification with some exceptions such as Local Flying Areas.

5.2.2 What IS going to change?

- The airspace classification will change to Class D (proposal);
- VFR aircraft will not be separated from IFR aircraft by ATC, but in line with CAP493 Section 1, Chapter 5 and the procedures detailed later in this document, these aircraft will be safely deconflicted or integrated with each other;
- In suitable weather conditions, VFR aircraft (which are currently SVFR in Class A airspace) will no longer be separated from one another. This will give rise to an increase in airspace capacity, notably outside the Inner Area of the CTR;
- Any aircraft that requires entry into the Inner Area of the CTR (unless exempt from the requirements[14]) will be subject to PPR. Technically this only currently applies to helicopters landing or departing, but in practice, the Inner Area already applies to all SVFR aircraft due to the separation requirements.

5.3 What to do next?

If you have read and understood the proposal, go to Section 6: Next Steps, where you will find details on how you can respond to the consultation.

If however you would like more detail on the NATS preferred option of Class D airspace and the reasons for discounting Class C airspace, then please turn to Section 7: Airspace Classification Options in Detail.

For an electronic copy of the consultation document please visit www.nats.co.uk/environment/consultations/ and click on the link for the London CTR Reclassification consultation.

[14] IFR traffic to/from Airways with approval to land/depart Heathrow and Northolt will be exempt

Section 6: Next Steps

6.1 How Do I Respond?

NATS requests that you consider this proposal and provide a written response. In accordance with the CAA airspace change process, a period of 12 weeks has been allowed for this stakeholder consultation. Where possible an early response would be appreciated so that any issues arising may be addressed as soon as possible.

The closing date for replies associated with consultation issues, is **24th December 2013**.

Please respond even if you have no objection to the proposal.

This consultation will be primarily managed by email; however postal responses will be accorded identical status and processed in the same way.

6.1.1 Via Email

Please compose your response in the following format:

Email To: airspaceconsultation@nats.co.uk

Subject: London CTR Reclassification Consultation

First line of text:
"I am responding on behalf of [name of organisation/local council]"
or "I am responding as a member of the public"

Second line of text: [Agreement to pass on personal details to the CAA, for Data Protection Act compliance]:
"I/We agree/do not agree that personal details contained within this response may be sent to the CAA as part of the Airspace Change Proposal"

Third line of text: Your formal response, one of the following:
"I/We support the London CTR Reclassification Proposal to change the airspace to **Class D**"

and/or "I/We object to the London CTR Reclassification Proposal to change the airspace to **Class D**"

or "I/We have no objection to the London CTR Reclassification Proposal to change the airspace to **Class D**"

Subsequent text:
Please state the grounds behind your formal response, i.e. the reasons why you support or object to the proposal.

Please include your contact details in case we need to contact you on any aspects of your response as appropriate.

Although numerous stakeholders have been identified, this is a public consultation that is not limited to the organisations listed at Appendix A: List of Consultees and anyone is welcome to comment.

6.1.2 Via Postal System

Please compose your responses in the above format and send it to:

London CTR Reclassification
Consultation Coordinator
NATS
4000 Parkway
Mailbox 10
Whiteley
Fareham
PO15 7FL

If you wish to submit a formal response to the consultation please use the contact information above marking clearly on your correspondence **'Response'** i.e. placing it in the letter reference along with the name of any organisation or group you may be representing. Please include your contact details in case we need to contact you on any aspects of your response as appropriate.

Although numerous stakeholders have been identified, this is a public consultation that is not limited to the organisations listed at Appendix A: List of Consultees and anyone is welcome to comment.

6.1.3 If I have no comment to make on the proposal, do I need to do anything?

If you have no comment to make on the proposal, either as an individual or as a representative of an organisation **we would still like to know**. Please send your email with **'No Comment'** in the email subject line or letter reference, again stating your name and/or organisation you represent.

6.1.4 What happens to the responses to the consultation?

Responses to the Consultation are used to prepare a formal submission to the CAA regarding the proposed change.

Responses to the consultation will be analysed to identify the key concerns of respondents and how these may be addressed. Where concerns can be addressed by making changes to the overall proposal, whilst still protecting the integrity, purpose and benefits of the proposal, these will be made and incorporated into the formal submission to the CAA; any significant changes to the proposal may extend or restart the consultation process.

6.1.5 When does the CAA decide on the outcome of the Consultation?

Following consultation NATS will submit an Airspace Change Proposal (ACP) to the CAA. The CAA will make a decision within 16 weeks of the submission of the ACP.

6.1.6 Can I have the consultation results?

A summary report including feedback of this Consultation will be added to the NATS website http://www.nats.co.uk/environment/consultations. This will be published shortly after the consultation closes.

6.1.7 Who monitors the consultation and where can I go if I have concerns regarding how the Consultation is being carried out?

This consultation is being conducted by NATS. The CAA maintains oversight of the conduct of the consultation in accordance with Government's Guidance on Consultation. Such guidance is reflected in CAP725 (CAA Guidance on the Application of the Airspace Change Process), available on the CAA website at http://www.caa.co.uk/docs/33/CAP725.PDF.

Queries or complaints concerning adherence to the consultation process should be addressed, preferably by e-mail, to the following:

Hd of Airspace Policy, Coordination & Consultation
Directorate of Airspace Policy
CAA House
45 - 59 Kingsway
London WC2B 6TE

E-mail: airspacepolicy@caa.co.uk

Response to the nature of this specific consultation should be addressed to:

London CTR Reclassification
Consultation Coordinator
NATS
4000 Parkway
Mailbox 10
Whiteley
Fareham
PO15 7FL

E-mail: airspaceconsultation@nats.co.uk

The CAA will receive details of your response as part of the formal ACP submission for this proposal. (see 'Confidentially' below).

6.1.8 Will my Query/Response be treated as Confidential?

The CAA requires all consultation material, which includes copies of responses from all key stakeholders, to be included in any formal submission. If you do not want your name and address details to be passed to the CAA, you may opt out using the appropriate text as per the template response given earlier.

Apart from providing details to the CAA, NATS undertakes that personal details or content of responses and submissions will not be disclosed to any third parties without prior permission.

6.1.9 What happens next?

Shortly after the consultation period closes, a feedback report will be published on the NATS consultation website[15]. This will include summary details of the main issues that have been raised by stakeholders during the consultation period.

Once the consultation has been completed, any issues arising from the feedback will be considered, which may result in the proposal being amended. NATS will submit a formal proposal for a change of airspace classification to the London CTR, to the CAA. It is a requirement of the consultation process that NATS provide the CAA with full details of the Consultation (including copies of responses and correspondence) to ensure that all issues raised have been considered and satisfactorily addressed. This will be sent together with all documentation necessary for the promulgation of the proposed change.

The CAA will then review the proposal (which can take up to 17 weeks) and reach a Regulatory Decision. If the proposal is approved, the implementation process could take a further 17 weeks. The target date for the classification change to come into operation is 18th September 2014.

[15] http://www.nats.co.uk/environment/consultations/

Section 7: Airspace Classification Options in Detail

7.1 Class C Option (discounted)

Class C airspace could be made to work, but the high workload involved in ensuring separation between IFR and VFR traffic would restrict capacity to handle VFR traffic. Passing traffic information between multiple VFR aircraft outside the Inner Area combined with the workload separating IFR and VFR traffic in the Inner Area could lead to excessive controller workload, if VFR access was not restricted.

7.1.1 Separation Standards

Under SERA Class C airspace rules in the context of the London CTR, IFR and SVFR traffic is separated from all other flights using standard 3nm lateral or 1000ft vertical separation, or other separations approved by CAA.

IFR traffic is separated from SVFR and VFR flights. Traffic Information is passed to VFR traffic on other VFR flights.

7.1.2 VMC Criteria

Below FL100 the SERA Class C VMC criteria states that **all** VFR aircraft (rotary, fixed wing, airship etc.) must remain 1500m horizontally and 1000ft vertically, from cloud with a flight visibility of 5km.

Based upon these criteria and the assumption that all pilots will apply the SERA VMC and SERA 'low flying' rules, it is estimated that over congested areas (e.g. London) where 1000ft obstacle clearance must be observed, approximately 35% of VFR flights could require a SVFR clearance, primarily due to low cloud. Away from such congested areas this percentage could still be considerable but reduced as only a 500ft obstacle clearance is required and there is a better chance of being able to maintain 1000ft clear of cloud.

Unlike Class D airspace, under the Heathrow and London City final approaches in Class C airspace, there would not be the flexibility to offer clearances above 1000ft amsl in order for pilots to comply with the 1000ft obstacle clearance rule. This could lead to helicopters having to fly the helicopter routes far more than today as these routes would be exempt from the 1000ft obstacle clearance rule unlike off-route tracks.

7.1.3 Speed Limit (250kts) Below FL100

In Class C airspace the SERA 250kts speed limit below FL100 only applies to VFR aircraft.

7.1.4 Airspace Access

IFR

IFR access to Heathrow and Northolt would remain the same as it is today.

VFR – Inner Area

Normal Priority VFR traffic wishing to enter the Inner Area of the CTR to operate or land would be required to follow the PPR 60 minute rule (as today for landing and departing helicopters) and would continue to take a delay commensurate with the average Heathrow traffic delay. Such delays to VFR traffic would be equally as likely as in current Class A airspace due to the same separation requirements between IFR and VFR. This would also mean that delays to IFR inbound and departing traffic as a result of such VFR traffic would remain as today.

As IFR traffic requires separation from VFR flights there would be no gains in controller workload and consequent capacity to be had for VFR flights entering the Inner Area.

Helicopters flying on the helicopter routes in the Inner Area would not need to obtain PPR, as is the case today. Aircraft subject to an Airspace Coordination Notice (ACN) or Non-Standard Flight (NSF) and priority traffic would follow their own notification procedures.

VFR – Outside the Inner Area

Transits which use the free-call method of entry would be allowed entry, subject to controller workload, as today. As VFR traffic does not need to be separated from other VFR flights (and as this traffic will not effect IFR flights) there may be an opportunity for the volume of flights allowed entry into the CTR, to route around the Inner Area, to increase marginally above the levels seen today.

However, this increase would be minimal and further reduced if VFR aircraft were operating in the Inner Area due to the complexity of separating IFR from VFR. It would also be subject to controller and the prevailing conditions on the day and therefore NATS is unable to quantify this.

7.1.5 Effects of VFR Entry

VFR v VFR

Routing around the outside of the Inner Area, a VFR flight would have minimal effect on other VFR flights as there is no requirement to pass Traffic Information and therefore a small capacity increase due to a workload improvement, might be possible. However as is detailed below the requirement to separate VFR from IFR makes any increase in VFR entry unlikely when other aircraft are operating in the Inner Area, generating high controller workload.

VFR v SVFR

VFR and SVFR flights would receive traffic information on one another.

VFR v IFR

VFR traffic would need to be separated from IFR traffic as is SVFR from IFR in Class A airspace today. Therefore no capacity gain would be made over today's operation.

7.1.6 Justification

The table below examines in detail, the Class C airspace option by using a set of standard criteria which were applied to all classifications under consideration.

Assessment Criteria	Class C
Operational Implications	VFR access to airspace remains limited by separation requirement from IFR, however in theory equal access for VFR and IFR applies which would be much harder to strive for in Class C. In Class A airspace SVFR offers a degree of protection from this as, 'SVFR shall not hinder IFR'.
How much of a change from extant Class A?	Would not change the interaction between VFR traffic and IFR traffic so would not deliver operational benefit or resilience for Heathrow. With no requirement to separate VFR from VFR there may be an increase in airspace capacity.
Any change to controller workload	Permitting VFR could increase requests for airspace access. With no separation requirement from other VFR aircraft, entry could be granted, however, with IFR / VFR separation requirements remaining unchanged, overall workload would increase.
Training	Higher training requirement – differences between Class A and C. Approach controllers unfamiliar with Class C airspace.
Heathrow delays caused (infrequently) by heli traffic (Cat A&B, & royal flights)	Heathrow delays same as today
Safety implications for IFR traffic	No change from Class A
Service implications	As extant
Environment	As extant
Is SVFR permitted?	✓
VFR minima	1500m horizontally & 1000ft vertically clear of cloud 5km visibility
Compliant with SERA?	✓
Retain Local Flying Areas?	✓
Separation standards	Separate IFR from IFR and VFR. Separate SVFR from IFR No requirement for separation between VFR and VFR.

Assessment Criteria	Class C
Separation required: **IFR – IFR** **IFR – VFR** **IFR – SVFR** **SVFR - SVFR** **VFR – VFR**	 Yes Yes Yes Yes No
How to "adapt" to allow Helicopters to continue to operate as per today	Complex rules and procedures would still be required to alleviate the issues caused by the requirement for separation between IFR & VFR. Some scope for simplifying procedures due to removal of VFR/VFR separation requirement.
Low Flying Rule Implications: Rule 5 requires VFR flights at least 1000ft agl.	Off route operations at the London Heliport and BUR NDB-Ascot could not be safely raised above 1000ft amsl due to IFR/VFR separation requirement.
Suspension of helicopter routes under certain circumstances due to separation requirements.	As extant, no room for flexibility on H3 and H10 for VFR helicopters during Heathrow easterly operations.
Harmonised with London City CTR/CTA.	✘
250kts speed restriction below FL100, mandatory under SERA	Not applicable for IFR in Class C

7.1.7 Safety Rational: Why Class C is not an Acceptable Option

Six full days of workshops were held on 30 Apr/1 May, 7/8 May and 11/12 Jun 2013. The objective of the safety workshops was to identify hazards, hazard causes, possible outcomes and mitigation strategies. Risk classes were assigned to the outcomes.

The workshops were facilitated by NATS Project Safety representatives with appropriate representation from NATS Directorate of Safety, NATS System Engineering, NATS Controllers (Radar and Tower), NATS Unit Safety, Northolt Military Controllers and representatives of the pilot community (airline and helicopter), to provide adequate experience, knowledge and analysis capability.

The issues and concerns the participants had about the project were recorded. From the identified issues and concerns, the hazards were developed. The NATS Safety Management System process was used to establish the causes of the hazards, the outcomes and severities associated with them, the hazard frequency and probability, which then lead to the pre-mitigation risk classification. Mitigations to the causes were developed and recorded and the risk classifications (post-mitigation) were amended accordingly.

Safety Workshop Conclusions – Class C

The Class C airspace option was considered by the workshop panel to be the less attractive option (between Class C and Class D). The workload associated with maintaining separation between IFR and VFR aircraft in Class C would be similar to that in Class A airspace (IFR v SVFR) and when combined with passing traffic information between multiple VFR aircraft, could lead to excessive overall workload and this may require a restriction on VFR access.

There would be no change to today's level of delay given to IFR and VFR traffic as there is still the same requirement to provide separation under Class C airspace rules as for Class A. PPR rules for access to the CTR and Inner Area will need to be equally robust in Class C to ensure controllers are not overloaded.

Overall, the controllers felt Class C airspace could be a safe option only if VFR traffic levels were restricted; nevertheless, there were still risks and issues identified in assessing Class C that would need to be addressed. On the positive side, IFR traffic would still be given standard radar separation, as for Class A airspace but at the expense of VFR traffic capacity and operating altitudes.

The controllers felt the Class C airspace option was more restrictive than today's Class A airspace operations.

7.1.8 Changes to the CTR, Routes & Traffic Numbers

This section will detail the expected changes to the London CTR operation under SERA Class C rules compared to today's Class A operation.

Inner Area

There would be no change to the dimensions of the existing Inner Area as detailed in Figure 3. The Inner Area PPR requirements would apply to all VFR and SVFR aircraft, but with those same exemptions as per the proposed Class D procedures (ACN, NSF, routes H2 & H9 and high priority traffic).

IFR

There will be no change to IFR traffic profiles either into or departing from Heathrow airport or RAF Northolt. As standard separation is required between IFR flights and all other traffic, there is no opportunity to enable a less disruptive integration of VFR traffic than today.

Where a VFR aircraft must operate in the vicinity of Heathrow, this aircraft will be required to take a delay and wait for a gap to be created in the inbound or departing IFR traffic and the IFR traffic will be delayed to create an increased gap in which the VFR flight can operate. This does not represent a gain over today's operation where helicopters, particularly high priority Medical and Police flights, can cause significant disruption to Heathrow.

VFR/SVFR Requests

It is expected that aircraft which currently enter the CTR using a SVFR clearance will continue to do so in the same numbers, using either a SVFR or a VFR clearance. The routes which they take and the overall volumes are not expected to change from today but the requirement to separate IFR flights from VFR flights and to provide traffic information to VFR on VFR, will not deliver a benefit in capacity or workload.

Requests from the General Aviation community to enter the CTR are expected to increase however, as described above, the requirement to separate IFR flights from VFR and to pass traffic information to VFR flights on one another is likely to create a workload which will require restrictions on GA VFR entry.

Due to the complexity and subjectivity in calculating numbers of aircraft likely to request and be granted entry to the CTR as Class D airspace, NATS is unable to predict or to quantify this figure.

Local Flying Areas

Neither the lateral nor vertical extent of any of the LFAs would change. This would not be beneficial for the London Heliport where the Class D option allows for off-route London Heliport VFR traffic to comply with the 1000ft obstacle clearance rule by raising the Heliport LFA to 1300ft. Under Class C this would not be possible due to the requirement for standard separation from IFR traffic at Heathrow and London City, the result of which could be most traffic flying the helicopter routes into and out of the Heliport, creating a possible traffic congestion safety risk.

It would be proposed that the Denham, White Waltham, Fairoaks and Brooklands LFAs be notified for the purposes of exemption from SERA 8005 (Operation of Air Traffic Control Service, (b): clearances issued by air traffic control units shall provide separation: (5) between special VFR flights unless otherwise prescribed by the competent authority). The CAA as the 'competent authority' would be requested to issue an exemption such that SVFR flights operating autonomously within these LFAs are not required to be provided with ATC separation.

Furthermore, the Letters of Agreement between NATS and these LFA operators would be written according to SERA to ensure that the LoA (Letter of Agreement) constitutes a clearance to enter the airspace as detailed in SERA 6001: 'Classification of Airspace', part (c), 'Class C'.

When operating VFR, aircraft flying within the LFAs would be required to comply with those VMC and rules specified within SERA 5001 and SERA 5005 relevant to Class C airspace.

When unable to comply with SERA 5001 and SERA 5005, it is proposed that aircraft may continue to fly SVFR within the LFAs as today, provided that they remain clear of cloud with the surface in sight and maintain a minimum flight visibility of 3km, as today. Additionally, in accordance with SERA 5010, SVFR aircraft must observe a maximum speed of 140kts IAS.

Helicopter Routes

Under a Class C airspace classification, helicopter routes within the London CTR will remain unchanged from those today with respect to their tracks over the ground (see Figure 3). They would also be notified as exempt from the 1000ft obstacle clearance rule and, as today, all helicopters on the routes (apart from H3, H9 & H10 during easterly operations) would be deemed separated from IFR traffic without the need for traffic information.

As in today's operation, certain routes will be affected by IFR traffic depending upon the runway in use, due to the continuing need to ensure ATC separation, unlike operations in Class D.

H3 - Between Thorpe and Sunbury Lock would be raised to 1000ft amsl from the current 800ft amsl. Unlike Class D, H3 east of Sunbury Lock when Heathrow are on easterlies (i.e. departing to the east) would remain closed to all helicopters (other than high priority) due to ATC separation requirements.

H9 - Between Sunbury Lock and the London/Woking railway line would be raised to 1000ft amsl from the current 800ft amsl.

H10 - East of Northolt when Heathrow are on easterlies (i.e. departing to the east) current operations dictate that helicopters are delayed until a gap in northbound departures from Heathrow to available in order to provide ATC separation. Unlike Class D, in Class C airspace there would not be the flexibility for VFR helicopters to continue using H10 irrespective of Heathrow departures.

BUR NDB – Ascot Routing

This track and level will not change from today. All aircraft would have to maintain not above 1000ft amsl due to IFR v VFR separation requirements.

Transponder Mandatory Zone (TMZ)

Carriage of a Mode S transponder in Class C airspace is mandatory for all aircraft as it is for Class A, therefore a TMZ would not be required.

7.1.9 Environmental Considerations

This change is not driven by environmental performance and under a Class C classification it is expected that very little would change from today's Class A operation, with tracks over the ground, the levels and the volumes of aircraft entering the CTR and the Inner Area being little different.

Therefore there would be little change to today's emissions and fuel burn figures and no effect on noise, tranquillity, visual intrusion and air quality figures.

IFR

The interaction between IFR and VFR/SVFR will not change. ATC must separate IFR traffic from all other flights therefore there are no capacity or environmental gains to be had.

VFR

Helicopters whose operation is likely to delay Heathrow inbound and departing IFR flights, currently take a delay commensurate with the holding delay being experienced by the IFR traffic at the time – this would continue, as would the requirement to create an increased gap in the IFR traffic if the VFR flight is operating in the vicinity of Heathrow.

An small increase in the number of requests to enter the London CTR would be expected, however the requirement to issue traffic information between multiple VFR flights whilst also providing standard separation between IFR and VFR flights, means that the likelihood of additional GA aircraft entering the CTR above the volumes seen today, would be very small.

NATS is unable to quantify these figures due to the numerous influences on individual flights.

7.1.12 Overall Impact: Why NATS Considers Class C to be unsuitable for the London CTR

Due to the requirement for ATC separation between IFR and VFR traffic in Class C airspace (in a similar fashion to the separation between IFR and SVFR in Class A), Class C airspace represents the least change to Controllers. TC Heathrow would see no change to their role as TC SVFR would continue to provide separation from IFR traffic as per current operations.

However, ensuring separation between IFR and VFR traffic in Class C airspace has several drawbacks, seen through many years of experience of Class A airspace in the London CTR, where the same traffic (albeit SVFR due to airspace classification) had to be separated from IFR.

Many Police and Medical helicopter priority flights have to operate in the vicinity of Heathrow, exacerbated by the fact that Heathrow is situated in a densely populated area of West London. Ensuring ATC separation between IFR traffic and these flights which, due to their unpredictable nature, arrive on frequency with little or no warning, causes rapid increases in ATC workload for Radar and Tower Controllers alike. This can lead to tunnel vision towards the priority traffic and a reduction in safety margins elsewhere in the sectors.

As is often the case, when the Tower Controller cannot provide visual separation between IFR traffic and the VFR traffic, departures have to be suspended or arrivals delayed from approaching, or worse broken of the approach. This disproportionate effect on Heathrow IFR operations can be very frustrating for Controllers because, in the vast majority of instances, the VFR traffic would not actually be considered in conflict were the airspace to be Class D.

Non-priority helicopter traffic also generates a disproportionate effect on Heathrow operations. Helicopters that require to land and depart from the numerous private sites in the vicinity of Heathrow also cause delay. These flights have to be accommodated because access to the airspace cannot be denied; only delayed. Sites that cannot be accessed with visual or standard separation cause 4-5 minutes delay per rotation. Again, the vast majority of these helicopter operations could be accommodated with minimal effect on Heathrow were the London CTR to be Class D airspace.

Helicopters are required to hold for extended periods at low altitude in several places around the London CTR, whilst separation from IFR traffic is arranged by ATC.

For VFR traffic, Class C airspace generates a confliction between the Low Flying Rules and the requirement for ATC separation. Under VFR clearances, pilots not following published routes over London must fly 1000ft above obstacles. Yet, in order to provide vertical separation from London City Airport and Heathrow Airport traffic, ATC require the VFR traffic to be not above altitude 1000ft (i.e. above sea level). These conflicting requirements are very restrictive to Helicopter operations in Central London, particularly London Heliport, where historically most aircraft have flown direct routings by virtue of being twin engine aircraft.

For these reasons NATS operational and safety experts have deemed that Class C airspace, when considering all airspace users, is likely to be less safe than Class D airspace and will deliver no benefits over today's Class A operation, whereas Class D may deliver a small capacity, delay and environmental benefit.

7.2 Class D Option (NATS preferred)

Class D airspace with an Inner Area retained similar to today, where PPR rules apply, is considered by NATS to be the most appropriate solution for the London CTR. It will deliver the most acceptable control of access for VFR traffic whilst maintaining a safe environment for the IFR traffic using the UK's busiest airport. In cases where there is good weather, the ability to allow VFR traffic to self-separate from one another and to allow IFR and SVFR traffic to be safely deconflicted and integrated with VFR traffic will simplify and standardise operations.

7.2.1 Separation Standards

Under the SERA rules for Class D airspace, within the London CTR, IFR traffic will be separated from other IFR and SVFR traffic using surveillance radar separation of 3nm laterally or 1000ft separation vertically. Other separations approved by CAA can be used when required.

IFR flights will be passed traffic information on VFR flights with controllers using radar monitoring, aircraft performance and professional judgement to safely deconflict or integrate VFR aircraft.

VFR flights will be passed traffic information on all other flights.

Over and above the minimum ATC service in Class D airspace, the controllers duty of care as described in CAP 493 (MATS) Part 1 Section 1 Chapter 5, means it is incumbent on controllers to monitor IFR and VFR/SVFR traffic and prevent collisions after they have been provided with traffic information on one another.

7.2.2 VMC Criteria

Below FL100 the SERA Class D VMC criteria states that **all** VFR aircraft (rotary, fixed wing, airship etc.) must remain 1500m horizontally and 1000ft vertically, from cloud with a flight visibility of 5km. The CAA is considering the UK position on these criteria following their consultation on SERA implementation.

Based upon these criteria and the assumption that all pilots will apply the SERA VMC and SERA 'low flying' rules, it is estimated that over congested areas (e.g. London) where 1000ft obstacle clearance must be observed, approximately 35% of VFR traffic could require a SVFR clearance, primarily due to low cloud[16]. Away from such congested areas this percentage could still be considerable but reduced as only a 500ft obstacle clearance is required and there is a better chance of being able to maintain 1000ft clear of cloud.

7.2.3 Speed Limit (250kts) Below FL100

SERA Class D regulations dictate that all aircraft obey a 250kt speed limit when operating below FL100. This is also a current UK requirement within Class D airspace as detailed in the UKAIP. This is not currently an issue as this speed limit does not apply in Class A airspace.

[16] SVFR minima are a flight visibility of 1500m (800m for helicopters), clear of cloud and with the surface in sight and a maximum airspeed 140kts, in order to allow aircraft to operate when the conditions are below VMC minima subject to ATC separation and workload.

Due to the relatively low height of the London CTR (2500ft) all aircraft observed during a study of the current operation, remained well below 250kts while within the CTR. All IFR arrivals are significantly below 250kts prior to entering the CTR and aircraft accelerating after departure do not exceed 250kts until leaving the CTR vertically. Therefore it is predicted that this regulation would have no effect upon operations in the CTR under Class D.

7.2.4 Transponder Mandatory Zone

The London CTR is currently a Mode-S Elementary mandatory volume of airspace by virtue of the fact that it is Class A airspace. A significant safety benefit is derived from the carriage of Mode-S transponders in the airspace around Heathrow due to the intensity of IFR traffic and the enhancement to TCAS that Mode-S accuracy delivers. Therefore the NATS proposal, post reclassification, is to maintain the current requirement for carriage of a transponder by the introduction a Mode-S Transponder Mandatory Zone (TMZ), coincident with the volume of the London CTR.

It is proposed that the Local Flying Areas of Denham, White Waltham, Fairoaks and Brooklands are initially exempt from the requirements of the Mode-S TMZ, and that this exemption is reviewed periodically.

7.2.5 Airspace Access

IFR

IFR access to Heathrow and Northolt would remain the same as it is today.

VFR – Inner Area

Normal Priority VFR traffic wishing to enter the Inner Area of the CTR to operate or land would be required to comply with the PPR requirements (as today for landing and departing helicopters). Delays to VFR traffic requiring access to the Inner Area would be less likely in many areas due to the change in separation requirements and flexibility that Class D delivers.

Helicopters flying on the helicopter routes in the Inner Area would not need to obtain PPR. Aircraft subject to an ACN or NSF and priority traffic would follow their own notification procedures

VFR – Outside the Inner Area

Transits which use the free-call method of entry would be allowed entry, subject to controller workload, as today. As VFR traffic does not need to be separated from other VFR flights, there is scope to handle these aircraft much more efficiently. For example it would be far less common to instruct aircraft to deviate from the requesting route in order to provide separation from other aircraft on conflicting routes. As a result, there may be an opportunity for the volume of flights allowed entry to route around the Inner Area, to increase marginally above the levels seen today.

However, this would be a minimal increase, subject to the controller and the prevailing conditions on the day and NATS is unable to predict or quantify this.

7.2.6 Effects of VFR Entry into the CTR

VFR v VFR

Routing around the outside of the Inner Area a VFR flight would have minimal effect on other VFR flights and therefore a small capacity increase due to a workload improvement, might be possible.

VFR v IFR & SVFR

VFR flights would not need to be separated from IFR flights, instead traffic information would be passed to each and controller radar monitoring, aircraft performance and the controller professional judgement and duty of care[17], would be applied to safely integrate VFR aircraft with IFR Heathrow and Northolt traffic.

VFR operations inside the Inner Area may affect Heathrow IFR traffic. However, instead of having to provide standard separation as today, controller judgement would determine whether passing of traffic information would be sufficient, or whether a some separation is required to maintain safety. In the case of the latter, the controller may ask for example, for an increased gap in the IFR traffic on the final approach to accommodate a landing or departing helicopter, as today.

Allowing controllers to exercise their judgement should, in most circumstances, remove the current situation where a helicopter could be operating just under 3nm laterally or 1000ft vertically from the IFR final approach path, which necessitates an increased gap in the final approach spacing.

VFR traffic operating outside of the Inner Area would not normally effect IFR operations and ATC instruction containing a 'not above altitude' clearance, as is used today, will ensure that this remains the case. If an aircraft requires to climb to comply with the low flying minima (1000ft above obstacles within 600m over a congested area), the Class D classification will allow controllers flexibility to use their judgement and either approve with no further action, pass Traffic Information to/on IFR traffic or (as today) delay IFR operations. Allowing the use of professional judgement in this way should minimise disruption to both IFR and VFR operations.

VFR helicopters operating on the helicopter routes should (according to the CAA SERA consultation) be exempt from the 1000ft obstacle clearance rule and will be deemed to be adequately deconflicted from IFR traffic without the need for traffic information to be passed; this negates the need to delay either the IFR or the VFR traffic. Procedures for helicopter routes H10, H9 and H3 (see Figure 3) will be changed18 when Heathrow airport is on Easterly operations, allowing more flexibility and less helicopter holding, a potential environmental benefit.

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[17] CAP493 (MATS Part 1), July 2013: Section 1, Chapter 5, details the ATC duty of care as follows, "...ATC has a responsibility to prevent collisions between known flights and to maintain a safe, orderly and expeditious flow of traffic.

[18] For a greater explanation of these routes and proposed changes to their operation, see Section 7.

7.2.7 Justification

The table below examines in detail, the Class D airspace option by using a set of standard criteria which were applied to all classifications under consideration.

Assessment Criteria	Class D
Operational Implications	For operational purposes NATS may still have to restrict VFR access to Class D airspace even when ATC separation is not required. The level of VFR access is likely to be slightly higher than it would be under Classes A/B/C and practical measures which are already in place to control this access would need to be formalised, particularly around the Prior Permission Required conditions for entry into the Inner Area. The Inner Area of the CTR is not normally suitable for the transit of VFR aircraft, irrespective of airspace classification and it requires a suitable level of protection for the very intense Heathrow IFR operations.
How much of a change from extant Class A?	Represents a significant change as it alters the way that aircraft operate in the airspace from separating all aircraft in Class A to not providing such separation between IFR & VFR in Class D. This will allow helicopters in the vicinity of Heathrow to be safely integrated with the IFR traffic with far less impact and ATC workload. Removing the requirement to provide standard separation between SVFR flights that can now operate VFR may increase airspace capacity. Traffic information will be passed to IFR and SVFR on VFR flights.
Any change to controller workload	Permitting VFR could increase requests for airspace access. With no separation requirement from other VFR aircraft, entry could be granted, but with a subsequent increase in workload. This increase in workload is balanced by reducing the very high workload associated with integrating helicopters with IFR traffic in the vicinity of Heathrow.
Training	Low training requirement as many Controllers already very familiar with Class D airspace.
Heathrow delays caused (infrequently) by heli traffic (Cat A&B, & royal flights)	Heathrow delays reduced due to change in separation requirement between IFR & VFR
Safety implications for IFR traffic	Could be a perceived reduction in safety due to IFR and VFR aircraft not being separated. However VFR traffic will be safely integrated with from IFR as per all other NATS Class D airspace, with additional protection for Heathrow via the Inner Area procedures.
Service implications	Improved service to helicopters, less delays to Heathrow IFR traffic.
Environment	Helicopters less frequently held prior to being granted further clearance. This reduction in holding gives improvement to noise footprint & fuel burn (figures not being quantified.

Assessment Criteria	Class D
Is SVFR permitted?	✓ and would continue to be separated from IFR and other SVFR traffic.
VFR minima	1500m horizontally & 1000ft vertically clear of cloud. 5km visibility
Compliant with SERA?	✓
Retain Local Flying Areas?	✓
Separation standards	Separate IFR from IFR. Separate IFR from SVFR Separate SVFR from SVFR Responsibility to prevent collisions between IFR and VFR, but not ATC separation. No requirement for separation between VFR and VFR.
Separation required: **IFR – IFR** **IFR – SVFR** **SVFR - SVFR** **IFR – VFR** **VFR – VFR**	 Yes Yes Yes No No
How to "adapt" to allow Helicopters to continue to operate as per today	Maximum opportunity to simplify rules and procedures in line with other NATS Class D airspace.
Low Flying Rule Implications: 1000ft low flying rule	Off route operations at the London Heliport and BUR-Ascot can be safely raised above 1000ft amsl due removal of IFR/VFR separation requirement, whilst still being adequately deconflicted from IFR.
Suspension of helicopter routes under certain circumstances due to separation requirements.	Will lead to fewer restrictions on helicopter routes during Heathrow easterly operations as controllers can use radar monitoring, aircraft performance and professional judgement to safely integrate VFR rather than needing to ensure ATC separation from potential 'worst case' aircraft performance.
Harmonised with London City CTR/CTA.	✓
250kts speed restriction below FL100, mandatory under SERA	Under SERA, the speed limit in Class D airspace will be 250kts. This is not considered a problem at Heathrow as aircraft are still accelerating and do not achieve 250kts until passing 2500ft when they quickly transition into Class A LTMA airspace where this restriction does not apply.

7.2.8 Safety Rational: Why Class D is the Preferred Option

Safety Workshops

Six full days of workshops were held on 30 Apr/1 May, 7/8 May and 11/12 Jun 2013.

The objective of the safety workshops was to identify hazards, hazard causes, possible outcomes and mitigation strategies.

The workshops were facilitated by NATS Project Safety representatives with appropriate representation from NATS Directorate of Safety, NATS System Engineering, NATS Controllers (Radar and Tower), NATS Unit Safety, Northolt Military Controllers and representatives of the pilot community (airlines and helicopter) to provide adequate experience, knowledge and analysis capability.

The issues and concerns the participants had about the proposed airspace classification change were recorded. From the identified issues and concerns, the hazards were developed. The NATS Safety Management System process was used to establish the causes of the hazards and likely outcomes. Mitigations to the causes were discussed and recorded and the final risk assessment made.

Safety Workshop Conclusions: Class D

The Class D airspace option was considered by the workshop panel to be the better option, given that the workload to safely integrate IFR and VFR aircraft in Class D airspace would be less than providing separation for the same aircraft in Class C. This should result in a release of controller capacity to deal with the increased workload of providing traffic information to the VFR traffic.

It was also considered that there would be less delay for IFR traffic, as there is not a requirement to separate these from VFR aircraft, and there would also be less delay for VFR traffic given that they would be responsible for ensuring they maintain adequate separation from IFR aircraft and from other VFR aircraft. The reason for this is that separation standards applied today within the London CTR as Class A airspace will not apply in Class D.

Controllers were at pains to state that duty-of-care would not allow them to let VFR aircraft proceed too close to IFR aircraft without issuing a control instruction that would maintain some form of separation, notwithstanding the fact it is still the VFR pilot's responsibility to avoid other aircraft. Additionally, it was felt that once IFR pilots were aware of the Class D airspace avoidance responsibilities they would become comfortable with less than standard separation between IFR and VFR especially given that PPR will still exist and VFR entry into the Inner Area will only be accepted if there is an appropriate requirement for the VFR aircraft to be there.

Overall, it was felt that changing to Class D airspace maintained current levels of safety, did not increase controller workload, would lead to less delays for IFR and would also lead to less delays and some increased capacity for VFR traffic wishing to access to the airspace.

7.2.9 Changes to the CTR, Routes & Traffic Numbers

This section will detail the expected changes to the operation under SERA Class D rules compared to today's Class A operation.

Inner Area

There will be no change to the dimensions of the existing Inner Area as detailed in Figure 3. The Inner Area PPR requirements will apply to all flights, excluding:

- Flight Priority Category A, B, C, D, E aircraft.
- Aircraft with an ACN who shall follow the notification process detailed within the ACN.
- Aircraft with an NSF who shall follow the notification process detailed within the NSF.
- Helicopters (or airships) that remain entirely on the helicopter routes.
- IFR aircraft inbound to or outbound from Heathrow and RAF Northolt

IFR

There will be no change to IFR traffic procedures or profiles either into or departing from Heathrow airport or RAF Northolt.

However, it is anticipated that the ability to pass traffic information and safety integrate VFR (rather than having to apply standard separation from SVFR) in certain instances, will remove some of the need to provide increased gaps in the final approach or suspend departures for helicopter operations in the vicinity of Heathrow. This in turn should reduce inbound and outbound delays on occasions where an increased gap would have been required.

Due to the complexity in attributing this type of delay in current operations NATS is unable to quantify this reduction in delays.

VFR/SVFR Requests

It is expected that aircraft which currently enter the CTR using a SVFR clearance will continue to do so in the same numbers, via a SVFR or a VFR clearance. The routes which they fly and the overall volumes of traffic are not expected to change significantly from today.

Requests to enter the CTR under VFR or SVFR, particularly outside the Inner Area are expected to increase and it is anticipated that the reduction in requirement to separate SVFR from SVFR flights (if able to fly VFR) should enable a small increase in the numbers which enter the CTR compared to today.

Due to the complexity and subjectivity in calculating numbers of aircraft likely to request and be granted entry to the CTR as Class D airspace, NATS is unable to predict or quantify this figure.

Local Flying Areas

The lateral extent of the LFAs in the London CTR will not change and the vertical extent will only change for the London (Battersea) Heliport, rising to 1300ft amsl in order for off-route VFR Heliport traffic to comply with the 1000ft obstacle clearance rule. SVFR traffic should (according to the CAA SERA consultation) be exempt from the 1000ft rule, and due to separation requirements from IFR traffic at London City and Heathrow, SVFR traffic in the vicinity of Battersea Heliport and its associated LFA will be cleared not above 1000ft amsl, as today.

It is proposed that the Denham, White Waltham, Fairoaks and Brooklands LFAs be notified for the purposes of exemption from SERA 8005 (Operation of Air Traffic Control Service, (b): clearances issued by air traffic control units shall provide separation: (5) between special VFR flights unless otherwise prescribed by the competent authority). The CAA as the 'competent authority' will be requested to issue an exemption such that SVFR flights operating autonomously within these LFAs are not required to be provided with ATC separation.

Furthermore, the Letters of Agreement between NATS and these LFA operators will be written according to SERA to ensure that the LoA constitutes a clearance to enter the airspace as detailed in SERA 6001: 'Classification of Airspace', part (d) 'Class D'.

When operating VFR, aircraft flying within the LFAs will be required to comply with those VMC and rules specified within SERA 5001 and SERA 5005 relevant to Class D airspace.

When unable to comply with SERA 5001 and SERA 5005, it is proposed that aircraft may continue to fly SVFR within the LFAs as today, provided that they remain clear of cloud with the surface in sight and maintain a minimum flight visibility of 3km, as today. Additionally, in accordance with SERA 5010, SVFR aircraft must observe a maximum speed of 140kts IAS.

Helicopter Routes

Helicopter routes within the London CTR will remain unchanged from today with respect to their tracks over the ground (see Figure 3). It is proposed that they will be notified as exempt from the 1000ft obstacle clearance rule in order that significant altitude increases are not required, which would compromise IFR flight safety. Assuming that the London CTR is changed to a Class D classification in September 2014 and that the SERA rules do not come into force in the UK until November 2014, this notification will initially be against the current UK Rules of the Air, Rule 6(c)(i) between these two dates.

After the November 2014 SERA implementation date the notification of exemption will be against the UK Rules of the Air 2014 which will incorporate SERA, the low flying rules and their exemptions.

As today, VFR and SVFR helicopters on the helicopter routes will be exempt from the 1000ft obstacle clearance rule and will be deemed to be adequately deconflicted against IFR traffic without the requirement to pass IFR v VFR traffic information.

Operating in Class D airspace will allow increased flexibility for VFR helicopter route operations on H3 and H10 to continue when, at the present time, they are not permitted or are delayed due to easterly Heathrow operations. There is also an opportunity, following departure aircraft performance analysis to raise portions of some of the routes, delivering associated benefits, as follows:

H3 - Between Thorpe and Sunbury Lock will be raised to 1000ft amsl from the current 800ft amsl. East of Sunbury Lock when Heathrow are on easterlies (i.e. departing to the east) VFR helicopters will be able to operate independently of Heathrow traffic. Currently this portion of the route is closed to SVFR traffic during easterly operations, and will continue to be so under Class D rules, due to the separation requirements from IFR traffic.

H9 - Between Sunbury Lock and the London/Woking railway line will be raised to 1000ft amsl from the current 800ft amsl.

H10 - East of Gutteridge (abeam Northolt) when Heathrow are on easterlies, VFR helicopters will be able to operate independently of Heathrow traffic. Currently this portion of the route requires SVFR traffic to hold awaiting a gap in northbound departures. Following departure aircraft performance analysis, it is proposed that SVFR helicopters on H10 are considered separated from all narrow body northbound departures and helicopter holding will only need to take place where ATC provide separation against 'heavy' northbound departures (due to lower climb performance).

BUR NDB – Ascot Routing

VFR aircraft routing via this commonly used route will be cleared not above 1200ft amsl, as opposed to the current limit of 1000ft amsl. Due to separation requirements from IFR traffic, SVFR aircraft will continue to be offered clearance not above 1000ft amsl.

7.2.10 TCAS (Traffic Collision Avoidance System)

NATS is fully aware of the potential increase of TCAS RA (Resolution Advisory) alerts that could accompany a change in classification of the London CTR to Class D. This is due to VFR aircraft potentially operating closer to IFR traffic when ATC separation is not required in Class D airspace. TCAS RAs on final approach are far from ideal, particularly in the intense environment around Heathrow where aircraft operate within minimum IFR separation to maximise capacity. The design of the proposed Class D airspace procedures has taken into account the requirement to keep TCAS RAs to a minimum.

Today in Class A airspace, SVFR aircraft already operate in relatively close proximity to IFR traffic provided that the Heathrow Tower controller is visual with both aircraft and can provide reduced separation in the vicinity of the aerodrome. Thus, such traffic operating in relation to one another would not be new to the airspace, and TCAS RAs are not a significant issue in the current Heathrow operation.

Unlike other Class D airspace, the Inner Area PPR area will ensure that only the necessary VFR flights operate in the vicinity of Heathrow IFR traffic during peak periods. Transiting through final approach and departure routes within the Inner Area will not be permitted, other than for high priority (Category A and B) flights. Instead, tasks and landing sites adjacent to IFR routes will be accessed from a direction that minimise the effect on IFR traffic.

Natural gaps in IFR traffic will be used wherever possible to safely integrate VFR operations in the vicinity of final approach and departure routes.

To enhance pilot situational awareness on occasions when VFR traffic is planned to be within 1nm and 500ft of IFR traffic it will, as far as possible, be on the same ATC frequency as the IFR traffic.

VFR traffic outside the Inner Area of the CTR will operate below IFR routes and will be managed in such a way that traffic information is not normally required and the TCAS protection envelope is not infringed, as far as possible. This will also minimise any potential increase in controller workload, but will still permit VFR traffic to fly higher without effecting TCAS.

7.2.11 Environmental Considerations

This change is not driven by environmental performance however there are common sense conclusions which can be drawn from what is likely to happen operationally.

IFR

It is anticipated that the ability to pass traffic information rather than having to apply standard separation in certain instances, will remove some of the need to provide increased gaps in the final approach and departing IFR traffic caused by helicopter operations in the vicinity of Heathrow. This in turn should reduce inbound and outbound delays for IFR traffic on occasions where an increased gap would have been required.

VFR

Helicopters whose operation is likely to delay inbound or outbound IFR flights to Heathrow, currently take a delay commensurate with the holding delay being experienced by the IFR traffic at the time. The ability to pass traffic information to the VFR and IFR traffic, instead of applying standard separation, should result in a reduced effect on IFR flights from VFR operations. This in turn will reduce the requirement for the VFR helicopters to take a delay and this along with raising portions of the helicopter routes and the London Heliport LFA, should accrue an environmental benefit

A small increase in the number of requests to enter the London CTR is being predicted and this may result in a slight increase in the volume of VFR/SVFR flights entering the zone compared to today. However, it is not possible to quantify how, where and to what extent VFR traffic behaviour will change as a result of the reclassification and it is NATS intention to continue managing the airspace as it does at the moment.

Due to the many influences on aircraft behaviour NATS is unable to predict or quantify any benefits from the introduction of Class D airspace and so this change is not predicated on claimed environmental benefits.

7.2.14 Overall Impact: Why NATS Considers Class D to be the Most Suitable and Only Classification Option for the London CTR

Operational gains will be possible due to the reduction in the requirement to provide standard separation and the ability of the controllers to use professional judgement to pass traffic information instead. These gains would be in the form of a reduction in complexity and workload, currently caused by SVFR requiring separation from SVFR but not being required when flights can enter the CTR under VFR rules.

Under SERA Class D rules, IFR and SVFR operations would continue as today, being separated from one another and it is expected, in the same volumes as today. However, VFR flights may see a slight increase in the volume of traffic accepted into the CTR. The Inner Area would operate as it does today with a PPR requirement, with helicopter transits using helicopter routes H2 or H9, and other helicopters and fixed wing traffic routing around the Inner Area.

VFR and SVFR flights operating near to the Heathrow runways may still necessitate an increased gap in the landing IFR traffic or a stop on departures to accommodate their operations, however it is predicted that this would be less often than today as traffic information can be given where an appropriate safety margin remains instead of having no choice but to apply and ensure separation.

Both NATS in general and many of the controllers who manage the London CTR are already highly experienced at safely managing Class D Control Zones, which cannot be said of Class C airspace, the majority of which in the UK lies above FL195. Having the same classification within the adjacent London and London City Control Zones of reduces the chances of misapplication of separation standards, due to pilot or controller confusion.

For these reasons NATS operational and safety experts have deemed that Class D airspace is the only option which delivers the ability to safely integrate VFR, SVFR and IFR aircraft, taking account of the diversity of different operations to be accommodated within the London CTR without unduly impacting upon fair and reasonable access for all stakeholders. It is also expected to deliver small capacity, delay and environmental benefits over today's Class A operation.

Section 8: References

1. CAP 725: Airspace Change Process Guidance Document (click here)
2. Government Consultation principles guidance (click here)
3. SERA: European Commission Implementing Regulation No 923/2012 - Standardised European Rules of the Air (SERA)
4. CAP670: ATS Safety Requirements Description (click here)
5. Guidance to the CAA on Environmental Objectives relating to the exercise of its Air Navigation functions (click here)
6. CAP 493: Manual of Air Traffic Services (MATS) Part 1 (click here)

Cap 493 Flight Priority Catagories:

Category	Type of Flight
A	Aircraft in emergency (e.g. engine fault, fuel shortage, seriously ill passenger). Aircraft which have declared a 'Police Emergency'. Ambulance/Medical aircraft when the safety of life is involved.
B	Flights operating for search and rescue or other humanitarian reasons. Post accident flight checks. Other flights, including Open Skies Flights, authorised by the CAA. Police flights under normal operational priority.
C	Royal Flights Flights carrying visiting Heads of State } which have been notified by NOTAM/Temporary Supplement
D	Flights notified by the CAA carrying Heads of Government or very senior government ministers.
E	Flight check aircraft engaged on, or in transit to, time or weather critical calibration flights. Other flights authorised by the CAA.
NORMAL FLIGHTS i) Flights which have filed a flight plan in the normal way and conforming with normal routing procedures. ii) Initial instrument flight tests conducted by the CAA Flight Examining Unit. (RTF callsign "EXAM")	
Z	Training, non-standard and other flights.

7. ICAO Annex 11 (click here)

Section 9: Glossary

Item	Description
ACC	Airport Consultative Committee
ACN	Airspace Coordination Notice
ACP	Airspace Change Proposal
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
amsl	Above Mean Sea Level
ATC	Air Traffic Control
BALPA	British Airline Pilots Association
BUR	Burnham (NDB)
CAA	Civil Aviation Authority
CAP493	Civil Aviation Publication – Manual of Air Traffic Services, Part 1
CAP725	Civil Aviation Publication – CAA Guidance on the Application of the Airspace Change Process
CAS	Controlled Airspace
CDA	Continuous Descent Approach
CTA	Control Area
CTR	Control Zone
EC	European Commission
EGLC	London City Airport (ICAO four letter designation)
EGLD	Denham Aerodrome (ICAO four letter designation)
EGLL	Heathrow Airport (ICAO four letter designation)
EGLM	White Waltham Airfield (ICAO four letter designation)
EGLW	London Battersea Heliport (ICAO four letter designation)
EGTF	Fairoaks Airport (ICAO four letter designation)
EU	European Union
FLOPC	Flight Operations Performance Committee (Heathrow)
ft	Feet (height)
GA	General Aviation
HACC	Heathrow Airport Consultative Committee
IAS	Indicated Air Speed
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
Km	Kilometres

kts	Knots (speed)
LB	London Borough
LFA	Local Flying Area
LoA	Letter of Agreement
LTC	London Terminal Control
LTMA	London Terminal Manoeuvring Area
m	Meters
MATS	Manual of Air Traffic Services
NDB	Non-Directional Beacon
NSF	Non-Standard Flight
nm	Nautical Mile
PPR	Prior Permission Required
RAF	Royal Air Force
SARG	Safety and Airspace Regulation Group (Group of the CAA responsible for Safety and Airspace matters, formerly Director of Airspace Policy (DAP) & Safety Regulation group (SRG))
SERA	Standardised European Rules of the Air
SVFR	Special Visual Flight Rules
TCAS RA	Traffic Collision Avoidance System, Resolution Advisory
TMZ	Transponder Mandatory Zone
UK	United Kingdom
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions

Section 10: Appendices

Appendix A: List of Consultees

NATMAC (National Air Traffic Management Advisory Committee)

Airport Operators Association
Aircraft Owners & Pilots Association UK
Aviation Environment Federation
British Airways
BAE Systems
British Airline Pilots Association
British Air Transport Association
British Balloon & Airship Club
British Business and General Aviation Association
British Gliding Association
British Hang-gliding & Paragliding Association
British Microlight Aircraft Association
British Model Flying Association
British Helicopter Association
Ministry of Defence
Guild of Air Pilots & Navigators
General Aviation Safety Council
Association of Transport Co-Ordinators
Helicopter Club of Great Britain
Heavy Airlines
LHR Airport Ltd
Light Aircraft Association
Light Airlines
Low Fares Airlines
PPL/IR Europe
UAVS Association
UK Flight Safety Committee

Heathrow Airport Consultative Committee Member Organizations

Chairman	Sam Jones
Secretary	Carole Havercroft
HACC Adviser	Philip Carlisle
Organisation	**Members**
London Borough of Ealing	Cllr Chris Summers
LB of Hillingdon	Cllr Dominic Gilham
LB of Hillingdon	Cllr George Cooper
LB of Hillingdon	Cllr Jazz Dhillon
LB of Hounslow	Cllr Peter De Vic Carey
LB of Hounslow	Cllr Ruth Cadbury
LB of Hounslow	Cllr Colin Ellar
LB of Richmond on Thames	Cllr David Linnette
LB of Wandsworth	Cllr Leslie McDonnell
Bracknell Forest Borough Council	Cllr Chris Turrell
Bucks County Council	Ruth Vigor-Hedderly
Runnymede BC	Cllr Patrick Roberts
Slough BC	Cllr Harjinder Minhas
Spelthorne BC	Cllr Marian Rough
Spelthorne BC	Cllr Spencer Taylor
Surrey County Council	Cllr John Furey
Royal Borough Windsor & Maidenhead	Cllr John Lenton
London Assembly	Dr. Onkar Sahota
London Councils	Cllr Alan Smith
Heathrow Association for the Control of Aircraft Noise HACAN/ClearSkies	Virginia Godfrey
Local Authorities Aircraft Noise Council	Rob Gibson
Ealing Aircraft Noise Action Group	Margaret Majumdar
London Chamber of Commerce & Industry	Iain Hope
ABTA	Susan Parsons
Guild of Travel Management Companies	John Williams
Trades Union Congress	John Gurney
Consumers' Association	Brian Yates
West London Business	Frank Wingate
International Air Traffic Association	Mark Gardiner
British Air Transport Association	David Joseph
Independents	x 7
Department for Transport Adviser	Tim May

Heathrow FLOPC (Flight Operations Performance Committee)

FLOPC is an internal committee of Heathrow. Its membership comprises pilots, NATS and Heathrow's Airside Operations team. It reviews noise, track and CDA performance, shares best practice and also advises on noise abatement procedures.

- Heathrow Airport
- Airline representation including, Virgin Atlantic, BA, Qantas, Lufthansa and Aer Lingus.
- NATS

Additional Identified Stakeholders

Local Airfields

Ascot Heliport
Biggin Hill Airport
Blackbushe Airfield
Brooklands Airfield
Denham Airfield
Elstree Airfield
Fairoaks Airfield
Farnborough Airport
Heathrow Airport
Kenley Glider Site
London (Battersea) Heliport & ATC
London City Airport
Redhill Aerodrome
White Waltham Airfield
Wycombe Airpark/Booker Airfield

Aircraft Operators

Arena Aviation
AV8 Helicopters
Capital Air Services
Cheshire Helicopters
Chiltern Police ASU
Chobham Helicopters
Cobham Flight Inspection
Commission Air
Elite Helicopters
Excel Charter
Flying Pictures
Flying TV Ltd
Harrods Aviation
Heliair Ltd
Helicopter Film Services
Helicopter Services Ltd
Heliview
High Level Photography Ltd
HQ Aviation
JCB Helicopters
Lightship Europe

London's Air Ambulance (HEMS)
London Helicopter Centres
Metropolitan Police Air Support Unit
National Grid Helicopter Unit
NPAS South East (Police Air Support Unit)
Patriot Aviation
PDG Helicopters
Premiair Aviation
Profred Partners
Ravenair
RotorMotion
RVL Surveys
Sealand Aerial Photography
StarSpeed Helicopters
Surrey and Sussex Air Ambulance
Thames Valley Air Ambulance
WPD Helicopter Unit

Appendix B: Class B Option (discounted)

Assessment & Justification Table

The table below examines in detail, the Class B airspace option by using a set of standard criteria which were applied to all classifications under consideration.

Assessment Criteria	Class B
Operational Implications	Minimal as Class B represents the smallest change from current arrangements. (In Class A, SVFR offers a degree of protection from this as 'SVFR shall not hinder IFR').
How much of a change from extant Class A?	Procedurally the most similar to Class A airspace. Essentially Class A airspace with VFR permitted. Class B would represent the smallest change from Class A airspace as there would be a continued requirement to separate all aircraft from each other. VFR access would be very limited as a result.
Any change to controller workload	Similar to Class A today, as VFR access would be very limited.
Training	Low training requirement as all aircraft are separated currently.
Heathrow delays caused (infrequently) by heli traffic (Cat A&B, & royal flights)	Heathrow delays same as today
Safety implications for IFR traffic	No change from Class A
Service implications	As extant
Environment	As extant
Is SVFR permitted?	✓
VFR minima	1500m horizontally & 1000ft vertically clear of cloud 5km visibility
Compliant with SERA?	✓
Retain Local Flying Areas?	✓
Separation standards	Requires all traffic to be separated.

Assessment Criteria	Class B
Separation required: **IFR – IFR** **IFR – VFR** **IFR – SVFR** **SVFR - SVFR** **VFR – VFR**	 Yes Yes Yes Yes Yes
How to "adapt" to allow Helicopters to continue to operate as per today	Complex rules and procedures would still be required to alleviate the issues caused by the requirement for separation between all aircraft.
Low Flying Rule Implications: The 1000ft low flying rule.	Off route operations at the London Heliport and BUR-Ascot could not be safely raised above 1000ft amsl due to IFR/VFR separation requirement.
Suspension of helicopter routes under certain circumstances due to separation requirements.	As extant
Harmonised with London City CTR/CTA.	✘
250kts speed restriction below FL100, mandatory under SERA	Not applicable for IFR in Class B airspace

Appendix C: Cabinet Office Code of Practice on Consultation

Text from Cabinet Office Code of Practice on Consultation
Website address - www.berr.gov.uk/files/file47158.pdf

The seven consultation criteria are:

1. When to consult
Formal consultation should take place at a stage when there is scope to influence the policy outcome.

2. Duration of consultation exercises
Consultations should normally last for at least 12 weeks with consideration given to longer timescales where feasible and sensible.

3. Clarity of scope and impact
Consultation documents should be clear about the consultation process, what is being proposed, the scope to influence and the expected costs and benefits of the proposals.

4. Accessibility of consultation exercises
Consultation exercises should be designed to be accessible to, and clearly targeted at, those people the exercise is intended to reach.

5. The burden of consultation
Keeping the burden of consultation to a minimum is essential if consultations are to be effective and if consultees' buy-in to the process is to be obtained.

6. Responsiveness of consultation exercises
Consultation responses should be analysed carefully and clear feedback should be provided to participants following the consultation.

7. Capacity to consult
Officials running consultations should seek guidance in how to run an effective consultation exercise and share what they have learned from the experience.