



# Airspace Classification Review

**AMEND**

**MANCHESTER LOW LEVEL ROUTE**

*PUBLIC ENGAGEMENT DOCUMENT – CAP2992*

Published by the Civil Aviation Authority, 2024

Civil Aviation Authority  
Aviation House  
Beehive Ring Road  
Crawley  
West Sussex  
RH6 0YR

First published May 2024

Republished as version 2 in June 2024

This edition corrects typographical errors in the original version. No substantive changes to content have been made.

Enquiries regarding the content of this publication should be addressed to: [airspace.classification@caa.co.uk](mailto:airspace.classification@caa.co.uk)

The latest version of this document is available in electronic format at: [www.caa.co.uk/CAP2992](http://www.caa.co.uk/CAP2992)

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## Structure of this engagement document

To assist readers in navigating the content of this document and identifying relevant information, the table below provides a summary of the topics covered in each section of the document.

Section	Description
1. Introduction	A description of the context and background of the proposed amendment, the reason for conducting the engagement exercise, and the purpose of the document.
2. Context of the Manchester Low Level Route	A review of the history and current operation of the Manchester Low Level Route
3. Design development	A summary of the analysis and considerations that led to the proposal to amend the Manchester Low Level Route
4. Design objectives	A summary of the of the design objectives which guide the proposal.
5. The Proposal	A description of the proposed amendment to the Manchester Low Level Route, including the specific changes being proposed
6. Effect of Proposed Option	An assessment of the potential impacts of the proposed amendment on aviation, local communities, and the environment.
7. The Engagement Process	A description of the engagement process, including information on how interested parties can provide feedback and the timeline for the engagement period.
8. Next steps	An overview of the next steps in the process of considering the proposed amendment to the Manchester Low Level Route, including the timeline for decision-making and the process for implementing any changes.
Appendix A – Glossary	Containing an explanation of aviation terms used in this document to aid readers who are not familiar with them
Appendix B – Engagement Questions	A copy of the questions which are asked on the <a href="#">dedicated engagement website</a> .

## CHAPTER 1

# Introduction

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- 1.1 In July 2023 the UK Civil Aviation Authority (CAA) published a detailed investigation<sup>1</sup> of the Manchester Low Level Route (MLLR) as part of its ongoing Airspace Classification Review.
- 1.2 The MLLR, currently designated as Class D<sup>2</sup> controlled airspace (CAS), benefits from a temporary exemption permitting aircraft to fly through it without contacting ATC, with adherence to specific conditions. This exemption, crucial for MLLR operations, is now due to expire on 31<sup>st</sup> May 2025. The comprehensive review, incorporating stakeholder input and safety data analysis, has identified safety concerns, such as the increased risk of mid-air collisions (MACs). The current configuration of the airspace, along with its temporary exemption status, is not aligned with our long-term operational objectives to simplify airspace. Consequently, we propose reclassifying and modifying the MLLR to enhance safety and efficiency, whilst also aligning it with these objectives.
- 1.3 This engagement exercise is part of a broader engagement strategy and has been prepared in accordance with the regulatory requirements of the CAA. Given the anticipated minimal impacts of the proposed amendment, we have designed this engagement exercise to be proportional and allow all stakeholders to familiarise themselves with the proposal, understand its potential effects, and share their opinions. We welcome valuable and timely feedback from all respondents and recognise that different stakeholder groups may have diverse viewpoints.
- 1.4 Through this engagement exercise, we aim to gather feedback from interested parties and understand their perspectives on the impact of the proposal. The information and opinions received through this engagement will be used to inform and influence our final airspace proposal submission to Airspace Regulation.
- 1.5 To make this information accessible to all, this document has been written in plain English. To assist with understanding, some technical aviation terms have been included in a glossary in Appendix A of this document. A [short summary containing the key points of this engagement](#) will also be produced.
- 1.6 The proposed amendment to the MLLR is an initiative led by the UK CAA. It's important to clarify that this project is distinct and separate from the broader

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<sup>1</sup> [CAP 2564: Airspace Classification Review: Manchester Low Level Review](#).

<sup>2</sup> Class D airspace permits entry only to aircraft in receipt of an air traffic control clearance and is defined in accordance with [Policy for the Classification of UK Airspace](#).

airspace change proposal (ACP) programme being undertaken by Manchester and Liverpool Airports as part of the Future Airspace Strategy Implementation (FASI) workstream to modernise airspace. This proposal by the CAA will be a temporary solution until the FASI program ACPs are implemented. It is expected that Manchester and Liverpool Airports will consider the issues we have identified and ensure they continue to be addressed as part of their comprehensive ACP designs.

- 1.7 Images contained within this document, unless otherwise labelled, are produced using the CAA Airspace Analyser Tool<sup>3</sup>.

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<sup>3</sup> The CAA AAT is a software tool which allows the CAA to view aircraft track history using external data sources. It allows the user to “draw” polygons which can be used to search traffic within a specific area, or, in the case of the images within this document, can also be used to highlight particular volumes or areas of airspace.

## CHAPTER 2 Context

### History of the MLLR

2.1 The MLLR is a volume of airspace within the Manchester Control Zone<sup>4</sup> (CTR), spanning from ground level to altitude 1300 feet (ft) above mean sea level (AMSL). Its location is shown in the pink shaded, north-south oriented block in the centre of the image in Figure 1 below.



Figure 1 Screenshot of VFR 1:500,000 map (Edition 47, 2024) showing the location of the MLLR (pink north-south corridor in image centre)

<sup>4</sup> Control zone is a volume of controlled airspace extending from ground level to a specified altitude, surrounding some (typically large/busy) aerodromes. It provides protection to aircraft operating to/from the aerodrome through provision of air traffic control (ATC) services and requirement of an ATC clearance to enter the airspace.



- 2.2 Originally known as the 'Special Low-Level Route', the MLLR was first established in 1967 following the cessation of large fixed-wing operations by the US military at RAF Burtonwood. At that time, the Manchester CTR, covering both Liverpool and Manchester Airports extended up to 11,000ft, operating under rules equivalent to today's Class A airspace which prevented Visual Flight Rules (VFR) flights<sup>5</sup>. This change enabled the creation of a transit path through the Manchester CTR, facilitating access to Manchester Barton Aerodrome.

## How the MLLR works today

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- 2.3 The MLLR operates as an important airspace feature within Manchester Airport's CAS by providing a crucial north-south routing for aircraft. It enables aircraft to navigate safely and efficiently through the adjoining Class D airspace volumes of Manchester and Liverpool Airports, avoiding a much longer route to circumnavigate the area.
- 2.4 It is particularly significant because it allows VFR traffic to transit through busy and complex airspace without the need for an air traffic control (ATC) clearance. This both simplifies access for pilots and avoids increasing ATC workload, and is achieved through an exemption to standard ATC protocol. Without this exemption pilots would likely find it extremely difficult to obtain an ATC clearance with regularity due to the busy and complex nature of both airports' ATC operations.
- 2.5 The image in Figure 2 shows the current airspace design in the region. Liverpool Airport's airspace is NOT subject to change in this proposal but is included in this imagery to display the large volume (45NM wide) of CAS it would be necessary to circumnavigate without either the MLLR's existence, or an ATC clearance being obtained.

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<sup>5</sup> VFR flights – flights operated using visual reference for navigation and traffic avoidance. As a result they are conducted in line with meteorological minima prescribing visibility and distance from cloud requirements.

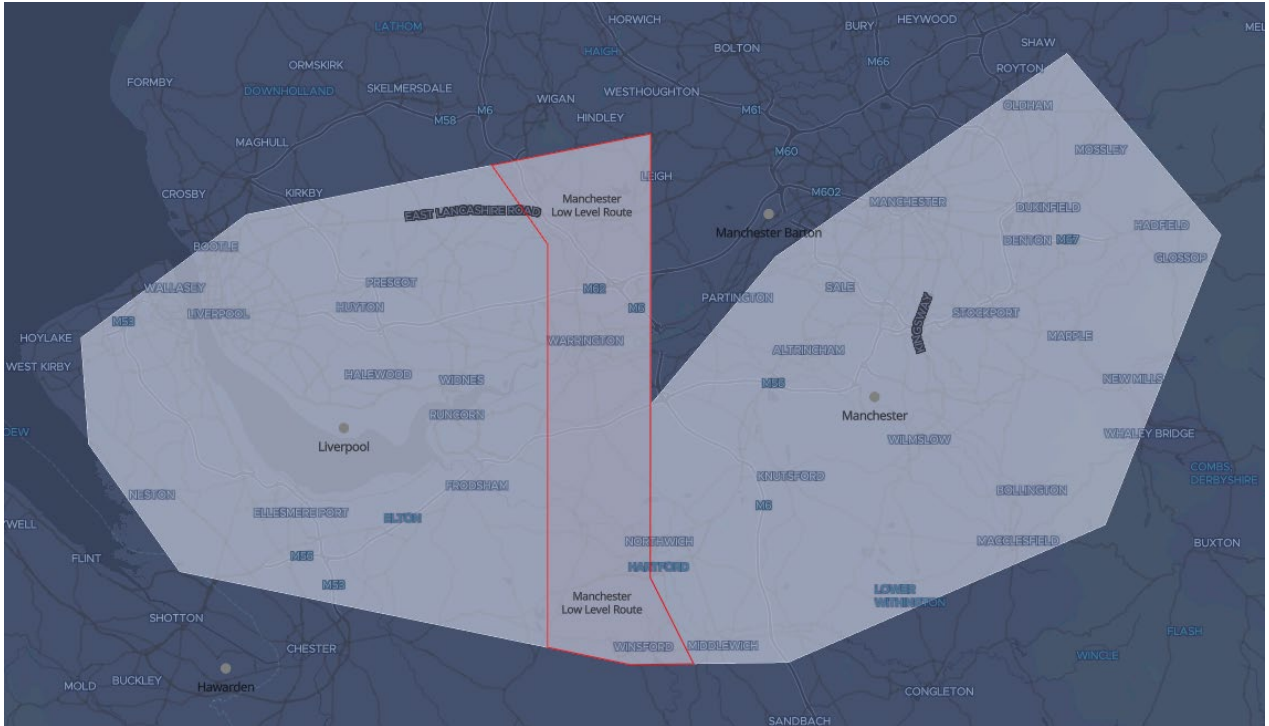


Figure 2 Current day design of Manchester and Liverpool CTRs. Manchester has a large CTR within which the MLLR is contained

## The exemption to Class D airspace

- 2.6 As mentioned above, the basis upon which the MLLR operates without the requirement for ATC service is through an exemption. This exemption is in the form of [Official Record Series 4 \(ORS4\) No.1596](#) which permits aircraft entry to this volume of controlled airspace, without a verbal clearance, subject to the conditions laid out in the [UK Aeronautical Information Publication \(AIP\) Section AD.EGCC.2.22.7](#).
- 2.7 The exemption means that aircraft can then enter and transit the MLLR if they adhere to specific conditions. These conditions, or “ruleset” as many aviators refer to, are:
- Aircraft operated in accordance with SERA.5005<sup>6</sup> VFR operations,
  - Maximum 140kts indicated airspeed<sup>7</sup> (IAS),
  - 5km or greater in-flight visibility,

<sup>6</sup> SERA.5005 details the meteorological minima to be applied to permit VFR flight, [LINK](#)

<sup>7</sup> This is the airspeed indicated on the instruments inside the cockpit of the aircraft. It is the speed at which an aircraft passes through an air mass and differs from speed over the ground due to variations in wind speed/direction and altitude.

- Display Mode-C transponder<sup>8</sup> (if equipped) code 7366 (or 7367 if solo student),
- Monitor radio frequency (if equipped) 118.580MHz (Manchester Approach frequency).

2.8 It is important to note that the exemption (originally due to expire on 31<sup>st</sup> May 2024) has been extended, by 12 months, to allow the implementation, subject to regulatory approval, of the amendments proposed through this work. If our work does not progress the exemption will expire following appropriate communication and education by the CAA.

### Current users of the MLLR

- 2.9 The majority of MLLR users are recreational general aviation (GA). Our analysis using the CAA's Airspace Analyser Tool revealed 5,635 aircraft tracks in 2023.
- 2.10 It is important to note that this data may not include all aircraft. Only aircraft with certain on-board conspicuity devices such as FLARM<sup>9</sup>, ADS-B<sup>10</sup>, or a Mode-S<sup>11</sup> transponder being received by 3 or more ground stations simultaneously, are displayed in the tool. Aircraft with no such conspicuity devices will not be displayed as the tool does not utilise radar data, which would normally be used by ATC to track such aircraft.
- 2.11 Around 66% of the MLLR's 2023 traffic consists of fixed-wing aircraft, with MoD aircraft constituting about 2-3% of movements, mainly helicopters operating into and out of Royal Air Force (RAF) Shawbury.
- 2.12 Usage patterns show that while most pilots use the MLLR for north-south travel, a significant portion also navigate leave/join the MLLR along its edges especially in the northern half of the route to/from the east near Manchester Barton Aerodrome.

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<sup>8</sup> Aircraft-based equipment which provides a specific code to a radar system which is then displayed to ATC.

<sup>9</sup> FLARM is a collision avoidance system used primarily by smaller aircraft, such as gliders and light sport aircraft. It functions by broadcasting the position, altitude, and speed of an aircraft.

<sup>10</sup> Automatic Dependent Surveillance-Broadcast, is a surveillance technology in which an aircraft determines its position via satellite navigation and periodically broadcasts it, allowing it to be tracked. This information can include the aircraft's identification, current position, altitude, and velocity.

<sup>11</sup> Aircraft-based equipment which provides detailed information to radar systems such as aircraft climb/descent rate, altimeter pressure setting and a specific aircraft ID.

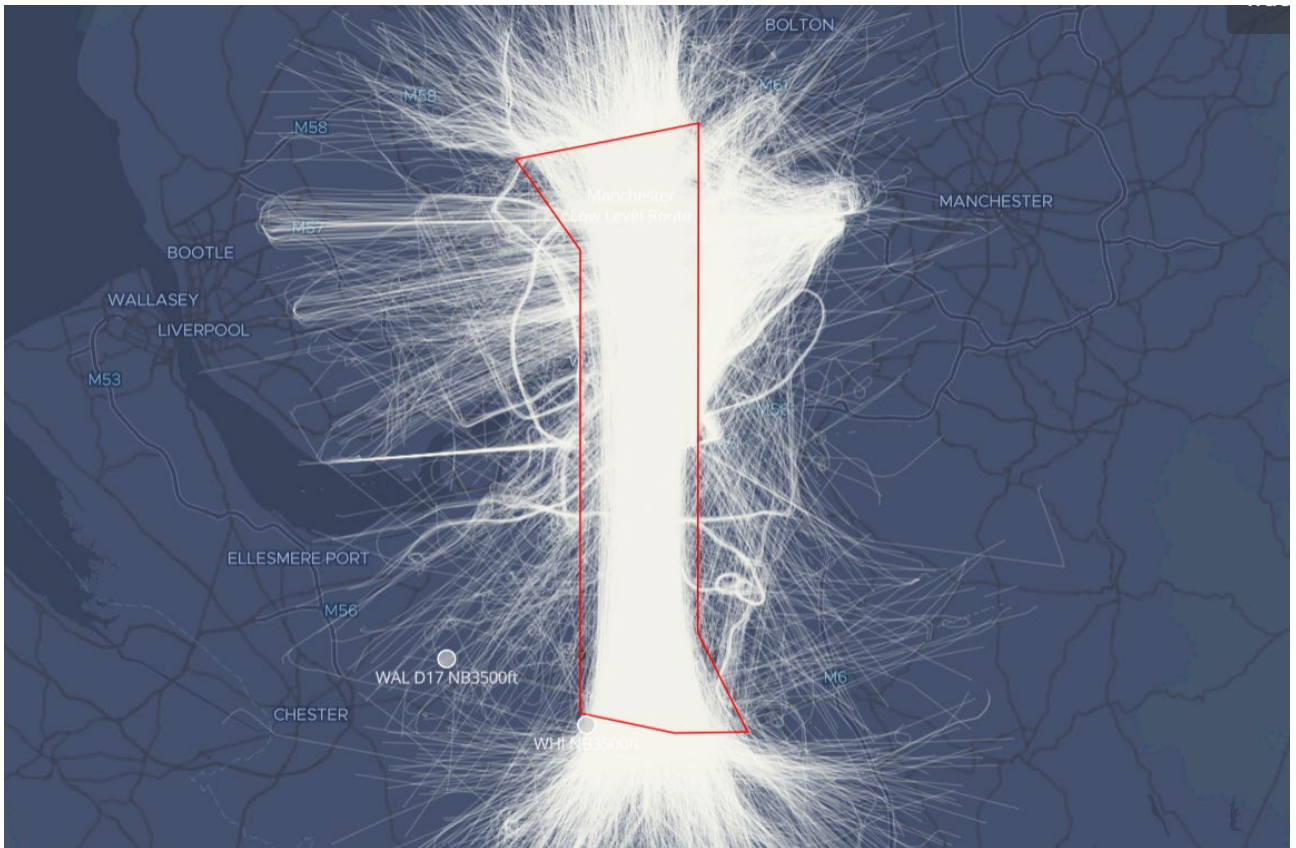


Figure 3 Tracks of non-commercial aircraft movements in and around the MLLR in 2023.

- 2.13 Figure 3 above shows non-commercial aircraft movements in the MLLR in 2023. Each white line represents a flight which at some point entered the MLLR, with 5,635 flights being displayed in total for the year.

## CHAPTER 3

# Design Development

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## Why the MLLR must change

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### Exemption Expiry

- 3.1 The MLLR is within Class D airspace and the “ruleset” that allows pilots to fly through it without obtaining a verbal clearance prior to entry, is achieved through the specific exemptions listed in [ORS4 No.1596](#), published on April 18<sup>th</sup> 2024. Prior to this date and throughout the review stage of this work (resulting in our MLLR report, CAP2564) the airspace was exempted by ORS4 No.1545 which had an expiry date of 31<sup>st</sup> May of 2024.
- 3.2 The CAA has temporarily extended the original expiry date of ORS4 No.1545 exemptions by way of a reissued ORS4 (No.1596). This supersedes No.1545 and permits current MLLR procedures to continue unchanged until 31<sup>st</sup> May 2025, or sooner at such a time that this proposal, if approved, is implemented.
- 3.3 It is not deemed an acceptable use of an ORS4 exemption to continually extend exemptions. Therefore, the MLLR airspace will be changing in some way; either by implementing the proposal in this document, or via the expiry of the exemption. The latter option would see the airspace revert to standard Class D rules (necessitating a requirement for verbal ATC clearance for all aircraft prior to entering).
- 3.4 It is our strongly held belief that the proposal contained within this document lowers risk for airspace users over a reversion to standard Class D operations (explained further in Chapter 6 – Effects of the proposal).
- 3.5 In the event of this proposal not being approved for implementation, the CAA will ensure suitable notice is given prior to this extension ending for the purpose of educating the flying community of the reversion to standard Class D procedures being applied to the airspace.

### Issues and risks identified in our MLLR report (CAP2564)<sup>12</sup>

- 3.6 Through our detailed analysis of the MLLR we have identified some key issues and risks with the MLLR in its current form. The most pressing of which is the risk of mid-air-collision. This risk is not only a concern for air safety but also has the potential to cause harm to people on the ground.

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<sup>12</sup> [CAP 2564 Link](#)

- 3.7 Also identified within the MLLR report was concern that aircraft may not be able to land safely, without undue hazard to persons or property on the ground, in the event of an emergency when flying within the MLLR. This is due to the lack of available sites for an emergency landing in the areas beneath it given considerable urban spread since its inception over 50 years ago.
- 3.8 The number of airspace infringements from aircraft operating in and around the MLLR's Class D CAS was also identified as a safety concern within the report. While the CAA's 'Take 2' initiative advises pilots to maintain a 200ft vertical or 2NM horizontal buffer from controlled airspace, this guidance could inadvertently escalate MAC risks within the MLLR's 4NM width, by funnelling all traffic along its centreline. It's important to note that 'Take 2' is not a strict rule and should be applied with safety as the priority.
- 3.9 A further issue identified is the use of pilot GPS navigation and VFR 'moving map' software. While these tools enhance navigational awareness, there can be discrepancies between the software and official aeronautical information, as these are not CAA regulated products or information. Particularly in the MLLR, the potential for opposite direction traffic increases the risk of MAC events, exacerbated by the MLLR's limited altitude range in which to avoid other aircraft. However, the recent inclusion of MLLR "ruleset" information in some moving map software applications is a positive step towards reducing airspace infringement risk.

## Solution elements considered and discounted

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### Air-to-Air Frequency

- 3.10 An air-to-air frequency was examined and ruled out as a tool to enhance safety as part of the CAP2564 report into the MLLR. As part of this proposal the idea was again investigated and the decision to not include it in a future proposal was confirmed due to the following reasons:
- A separate discrete frequency for MLLR users would not fit the airspace simplification goals of the Airspace Modernisation Strategy (AMS) and could in fact complicate matters by adding yet another frequency which airspace users may, or may not, use whilst in the MLLR.
  - Mandating its use would complicate the operation of the airspace with no way to confirm users were on frequency other than to require a listening out squawk be displayed on transponders. As per today's operation, this could result in multiple airspace infringements due to incorrect squawk selection. This would not adhere to our design objective of decreasing the risk of airspace infringements.
  - Future solutions such as electronic conspicuity will provide a better long-term solution to providing airspace users with increased awareness of each other.

- Aircraft operating with only one radio would be unable to monitor local airfield frequencies to ensure correct atmospheric pressure setting (QNH) selection.
- Were an airspace infringement to occur there would be no way for ATC to contact aircraft on an air-to-air frequency. The use of Frequency Monitoring Codes (FMCs) gives ATC the ability to contact an infringing aircraft and issue control instructions to prevent further incursion and separate conflicting traffic.

### **Widening the airspace to the west and southwest**

- 3.11 A widening of airspace to the west was considered as part of this proposal, but after careful evaluation this was deemed unsafe against the operation of Liverpool ATC. Due to the proximity of the runway at Liverpool, aircraft arriving for runway 27 (in use for around 65-70% of the year) overfly the existing MLLR at 2000ft. The proposed 1500ft base of controlled airspace in our design provides the minimum safe containment prescribed in the UK policy for the design of controlled airspace structures. Any further westbound extension would therefore remove the safe containment and prevent inbound aircraft from making a descent to the runway at Liverpool.
- 3.12 Further extension was also sought in the southwestern corner of our proposed Class G area. However, due to existing ATC procedures between Liverpool and Hawarden airports containing a managed safety risk, the proposal of a further extension was deemed to increase this risk to an unacceptable level. Therefore, this extension was not included in our solution.

### **Widening the airspace to the southeast**

- 3.13 Extensive consideration was given to widening the MLLR in the southeast corner to align with the visual feature of a railway line running between Northwich and Middlewich. The purpose of which was to align the CAS boundary with a ground feature making it easy for pilots to remain west of this and therefore also remain outside CAS.
- 3.14 We engaged with an array of stakeholders regarding this proposal which extended the width of the southeastern corner by approximately 1.25NM.
- 3.15 ATC at Liverpool Airport and NATS, providers of ATC at Manchester Airport, evaluated the proposal through their individual risk assessment processes and supported the change as acceptably safe.
- 3.16 However, following engagement with Manchester Airport Group (MAG) it was identified that this extension could have an impact on its ongoing FASI ACP<sup>13</sup> and affect the decision-making process within that work. We are, therefore, not

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<sup>13</sup> This Future Airspace Strategy Implementation Airspace Change Proposal aims to modernise the airspace and ATC operation in the UK. FASI (north) is a collaboration between Manchester, Liverpool and Leeds Bradford Airports to deconflict routes into and out of the airfields.

able to progress with this part of the widening as our CAP1991 process specifically stops us from impacting or impeding any ongoing ACP work.

- 3.17 The FASI work being undertaken by MAG does already include the design principle to minimise the amount of CAS to ensure the needs of other airspace users are considered. We expect MAG to evaluate and minimise controlled airspace to support the designed routes as it completes its design – something MAG has already committed to.
- 3.18 Our work completed to consider and support this widening to the southeast will be submitted by the CAA in response to MAG's public consultation on its proposals. Any ACP submitted to the CAA will be judged against the principle that the CAA has a duty to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the needs of all airspace users are reflected on an equitable basis.

### **Northerly and southerly traffic flow positioning**

- 3.19 Due to the narrow constraints of the airspace this option was discounted as it would not be possible to include safety buffers to opposite direction tracks, as well as the surrounding controlled airspace. In addition to this, the suggestion is not in line with the principal of Class G airspace and the ability of pilots to fly wherever they wish within it. This is particularly relevant when considering traffic arriving and departing at Barton Aerodrome which would cause many aircraft to “cross” a flow of traffic when entering or leaving this airspace.

### **A “split” airspace solution**

- 3.20 We also considered a solution which divided the MLLR into a northern and southern half. Standard Class G VFR minima would have been required in the northern half, whilst the increased minima we propose later in this document, as a restriction to enter a Restricted Area<sup>14</sup> (RA), would have been required in the southern half.
- 3.21 This proposal was rejected by stakeholders as it was deemed to increase risk, especially on the western boundary. Should the other elements of the proposal contained within this document to be approved, it will be possible for aircraft outside CAS to fly 500ft below aircraft within CAS. Currently there is a minimum 700ft between MLLR traffic and other traffic inside CAS under ATC control. It was agreed by stakeholders that an airspace infringement could consequently have an effect on ATC operations, specifically the amount of time available to ATC to resolve a conflict, due to the reduced separation already in place from

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<sup>14</sup> restricted area refers to a segment of airspace designated by a governing aviation authority where flight operations are subject to restrictions



this change. This is especially the case if aircraft operating inside CAS are descending, which is commonplace in this area.

- 3.22 It was therefore agreed that the design proposed must do its utmost to prevent airspace infringements. To achieve this objective, it was agreed that a visibility solution must be applied for the entirety of the airspace we intend to amend. This would maximise a pilot's ability to identify visual clues and references on the surface and allow them to navigate with increased accuracy and remain outside CAS.

### **Mandating a frequency (air to ground) or squawk for users**

- 3.23 Once Class G airspace had been decided upon as the most appropriate classification of airspace, consideration was given to implementing a mandate within the airspace to monitor a specific radio frequency and/or display a particular squawk. This had some similar considerations to those of the air-to-air frequency already discussed and was ultimately discounted due to the following factors:

- Mandating a radio frequency would be difficult to monitor and enforce. Possible solutions could have been to:
  - Display a squawk that affirms a listening watch on frequency to observing ATC units. This would also require the agreement of an ATC unit to monitor uncontrolled airspace and increase already high existing workload. Failure to adhere to this process would constitute an illegal entry to a restricted area and could be a common occurrence due to pilot error / distraction / unfamiliarity with new rules. This would not adhere to our design objective of decreasing the risk of airspace infringements.
  - Aircraft would have to identify themselves to ATC through radio contact. Again, this would create an unacceptable increase to workload and radio transmissions for the nominated ATC unit.
- Mandating contact with a frequency is not aligned with the concept of uncontrolled airspace. Class G does not mandate this elsewhere in the UK.
- By mandating either, or both, of these conditions we would limit access to the airspace to only those aircraft suitably equipped. This would decrease accessibility from today's current solution, which does not adhere to our design objective requiring equitable access to be maintained or improved.

## CHAPTER 4

# Our design objectives

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- 4.1 To adequately address the issues and risks identified, we created our design using the following design objectives. These objectives serve as the foundation of our approach, informing how we have shaped our proposed solutions for the MLLR. They ensure that our proposal not only addresses the identified challenges, but also gets the most out of the opportunities for improvement.

### Objective A – Maintain a high standard of safety

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- 4.2 Safety is the number one priority in everything we do within the CAA, and as such, it is the most important objective when we design our solution. In the case of the MLLR we are looking to minimise MAC risk and increase the options for a pilot to land safely in an emergency, should they be required to do so.
- 4.3 In addition to this, we also want to facilitate a safe, simple crossing solution for pilots to operate between the CTR controlled airspace of both Manchester and Liverpool airports. Without this solution it would be necessary for pilots to fly either over high ground of The Pennines to the east or over the Irish Sea to the west, both of which increase risk to GA traffic.
- 4.4 All elements of our proposal have been discussed at length with, and achieved the support of, the ATC units at both airports to maintain the safety of traffic operating within the surrounding CAS.

### Objective B – Simplify airspace in the region

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- 4.5 As stated above, the proposed solution aims to offer a safe and simple solution for aircraft wishing to transit CAS in the region without having to fly over high ground to the east or over water to the west. For over 50 years there has been a way to do this without speaking to ATC and we are aiming to maintain this simplicity for pilots, whilst adhering to standard UK regulations on the provision of ATS in differing classifications of airspace.

### Objective C – Reduce airspace infringements

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- 4.6 Airspace Infringements are an enabler to a MAC. Reducing infringements will lower risk within the ATC operation in the surrounding airspace, as well as being a key focus area of the CAA.
- 4.7 As stated in the CAA's MLLR report published in July 2023 there has been an increase in the number of airspace infringements within the Manchester CTR since 2021. According to our data, non-adherence to the current ruleset has

been identified as a causal factor in over two thirds (31 from a total of 45) of Manchester CTR infringements during 2023.

- 4.8 As part of our design solution, we are aiming to create a design which minimises the likelihood of an infringement occurring.
- 4.9 To achieve this objective we will also take into account the [European Action Plan for Airspace Infringement Risk Reduction](#).

## Objective D – Meet the objectives of the CAA’s Airspace Modernisation Strategy (AMS)

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- 4.10 The AMS is at the forefront of the CAA’s vision for UK airspace between now and 2040. One of the core values within the strategy is that all UK airspace is a state asset and as such, access to it should be fair and reflect the needs of all airspace users on an equitable<sup>15</sup> basis.
- 4.11 Currently the airspace known as the MLLR is accessible to pilots through the application of an exemption to Class D airspace rules, which negates the requirement to obtain a verbal clearance to enter the airspace prior to doing so.
- 4.12 This exemption will expire, and it is not permissible to extend the exemption ad infinitum.
- 4.13 This design objective will be achieved by proposing a solution which will maintain access to this airspace without the requirement to obtain a clearance from an ATC unit.

## Objective E – Adhere to the Air Navigation Directions

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- 4.14 Currently the MLLR sits within the Class D CTR of Manchester airport. CAA Policy for the Classification of UK Airspace states:
- 4.15 *“Within the UK, FIRs, CTRs and CTAs in the vicinity of those aerodromes where an ATC service is provided to aerodrome traffic are normally notified as Class D airspace, except where the design principles identified by the airspace change sponsor identify the need for a more restrictive classification”.*
- 4.16 Within the MLLR no service is provided to aerodrome traffic and therefore its designation as Class D airspace is not warranted. The CAA, under the Air Navigation Directions (AND), must seek to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the needs of all airspace users is reflected on an equitable basis.
- 4.17 Therefore, this proposal will adhere to both the AND 2017 and the CAA’s Policy for the Classification of UK Airspace. By introducing a tailored solution, we will

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<sup>15</sup> Please note, the CAA understands ‘equitable’ to mean that needs are fairly accounted for, not that each user has the same and equal amount of airspace and/or access

make sure the airspace classification accurately reflects the types of aircraft and flights within it, promoting safety and efficiency.

## CHAPTER 5

# The proposal

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### Proposed solution elements

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- 5.1 After detailed analysis and collaboration with both Manchester and Liverpool Airports, we are proposing an amendment to the MLLR with four core elements. The proposed elements are:
- Reclassifying the current Class D MLLR airspace to Class G airspace.
  - Implementing a Restricted Area within the reclassified airspace.
  - A maximum altitude within the Class G airspace of 1500ft – 200ft higher than the MLLR currently permits.
  - Creating Class G airspace wider than today's MLLR.
- 5.2 In our commitment to best practice and transparency, we are engaging and inviting comment on each element of the MLLR solution individually. This approach allows for thorough consideration and feedback on each aspect of the proposed changes. However, it's our strong belief that the combination of all proposed elements is essential for achieving the maximum risk reduction possible. As such, our preferred final submission to the regulator is expected to be one whole solution containing all the individual elements below.

### Reclassification to Class G

- 5.3 We are proposing to change the MLLR's airspace classification to Class G uncontrolled airspace. Consequently, pilots will not be required to obtain verbal clearance from ATC or follow the ruleset associated with the current MLLR and its exemption.
- 5.4 As a standalone change however, this would remove some existing safety barriers and therefore this is being proposed in conjunction with the solution element: [Implementation of a Restricted Area](#).
- 5.5 By simplifying procedures and removing the need for special permissions, we will make the airspace more accessible and straightforward for all users. Class G was decided upon as the most appropriate classification for our solution due to it achieving the following design objectives:
- A – The Class G airspace we propose will permit flight between the Manchester and Liverpool CTRs and therefore give pilots a means to transit north/south without speaking to ATC or obtaining a clearance. It also provides a safer alternative to the increased risk of aircraft having to route over either the high ground of The Pennines to the east, or the Irish Sea to the west.

- B – Simplifies airspace through removing the need for a clearance and by utilising a standard (500ft interval) airspace vertical boundary of 1500ft
- C – It is not possible to infringe Class G airspace due to its uncontrolled nature. Currently over 50% of Manchester CTR infringements are from aircraft entering the MLLR without adherence to the conditions specified in UKAIP EGCC AD 2.22.7, specifically the requirement to squawk 7366. This will no longer be a requirement for entry and as such a decrease in the number of airspace infringements is expected as a result of this proposal. However, the use of an FMC is still highly recommended when operating in the vicinity of an aerodrome which operates such a code.
- D – Meets AMS by providing equitable access to airspace between two major airfields' CTR Class D airspace volumes
- E – The reclassification of Class D airspace (which does not serve aerodrome traffic) to Class G is in line with the AND requirement for CAS to be kept to a minimum and also in accordance with Policy for the Classification of UK Airspace

## Implementation of a Restricted Area

5.6 To maximise the safety of our amendments to the MLLR, we are proposing the introduction of a Restricted Area (RA). This would restrict flight within the newly created Class G airspace only to flights which meet the restrictions applied. We will only implement a restriction where we believe it is fully necessary to maintain or improve safety. The restrictions proposed are:

- A maximum speed limit of 140kts IAS to be carried over from today's safety-increasing ruleset. This will provide pilots with increased time (over standard Class G speed restriction of 250kts) to employ see-and-avoid techniques consequently lowering MAC risk.
- A minimum in-flight visibility of 5km is also to be carried over from today's ruleset. This is a greater requirement than the standard Class G VFR minima, however, by keeping this restriction we can maintain the reduction to MAC risk it provides today. This is achieved by increasing (over standard Class G) to the time available to pilots to visually identify, and avoid, other aircraft. In addition to this, greater visibility minima allow for more accurate visual navigation, reducing the chances of airspace infringements occurring in the neighbouring CAS of both Manchester and Liverpool Airports.
- A mandate to use a local aerodromes QNH for flights beneath the new Control Area 6 (CTA 6). This will ensure consistency of altitude readings and reduce the risk of aircraft reducing vertical separation against aircraft inside CAS which can occur when significantly differing pressure settings are used.

- A restriction permitting a maximum aircraft MCTOM<sup>16</sup> of 40,000kg (equivalent to “Small” UK wake turbulence category). This is because larger aircraft need to generate increased lift to compensate for increased aircraft weight and do so through either larger wings or larger rotary blades, both of which result in a larger wake turbulence effect<sup>17</sup>. In extreme cases this turbulence can flip smaller aircraft or cause a loss of control having catastrophic results.

5.7 ATC radar will monitor compliance with the restrictions. Breaches of the restrictions are expected to be dealt with in accordance with the SARG Enforcement Policy ([CAP1074](#)) which is founded on a Just Culture process where learning is the driving principle.

5.8 Police, Air-Ambulance and Search and Rescue flights will be exempt from visibility restrictions. Due to the nature of their task, it is essential that the crews of these aircraft have access to this airspace at all times, and therefore visibility requirements shall not be enforced should the aircraft require to operate outside of the criteria specified.

5.9 These measures are aimed at making the airspace safer and more predictable for all users and align with the following design objectives:

- A – All the proposed restrictions ensure that the safety of aircraft flying within the RA is maximised – increased time for see-and-avoid, appropriate QNH, no wake turbulence.
- B – By introducing this RA airspace access is kept simple; access is prevented to aircraft unsuitable for the area and there remains no requirement to speak to ATC (although FMCs are available in this area, and their use is highly recommended). In addition, almost all flights abiding by the ruleset for current MLLR access will, by default, meet the criteria of the restrictions applied to the new airspace design.

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<sup>16</sup> MCTOM – Maximum Certified Take Off Mass

<sup>17</sup> Wake turbulence is composed of twin vortices trailing from the aircraft's wingtips or from rotary blades. The rotating air in the vortices can be extremely hazardous to following aircraft, particularly if they are smaller. The turbulence can cause sudden and severe rolling motions, which can be difficult to control.

- C – The RA will help reduce lateral infringements of CAS in three ways. By providing increased visibility minima, the ability of pilots to navigate using visual reference points and maintain an accurate position and track through the airspace will be improved over standard Class G operations. Vertical infringements may also be reduced by providing 200ft more vertical airspace in which aircraft can fly keeping a safe distance from both ground obstacles and controlled airspace boundaries. In addition to these benefits, the biggest reduction in airspace infringements is expected to come from aircraft no longer infringing CAS by displaying an incorrect transponder code. As the airspace will now be Class G, it will not be possible to infringe this volume. Use of FMCs remains encouraged for the safety benefit of an ATC unit being able to contact pilots if necessary.

### **Raising the altitude available to 1500ft**

5.10 We are proposing that the Class G airspace introduced will be from surface level to 1500ft AMSL, thereby raising the airspace available to transit the area by 200ft over today's operation. This will be achieved by changing the Class D airspace above from being part of the CTR, to now becoming a CTA with a lower limit of 1500ft. This change achieves the following design objectives:

- A – Risk is lowered by providing more airspace for GA, thereby reducing the risk of MAC. The added altitude also offers pilots a greater safety margin in emergencies, allowing more options for a safe landing.
- B – This change in altitude also aligns with UK airspace policies, particularly the policy for the design of CAS structures, ensuring a safe vertical separation between controlled and uncontrolled airspace. By setting the lower limit of controlled airspace at 1500 feet, we are adhering to guidelines that support safer VFR flight below controlled zones, while maintaining the required 500-foot vertical clearance from any instrument flight procedures (IFP) within the controlled airspace above. This 500ft provision is standard throughout UK airspace and in adhering to this we are simplifying airspace.
- C – This extra vertical airspace will assist in reducing airspace infringements by allowing pilots to achieve vertical ground obstacle clearance without having to operate at the maximum available level and can therefore maintain a safe distance from controlled airspace structures above.
- D – The extra altitude provides extra airspace for GA aircraft to operate within. In doing so this considers, and provides, a means of equitable access to airspace in the region for all airspace users.
- E – This proposal, by reclassifying Class D airspace into Class G airspace, ensures CAS is kept to the minimum levels necessary for a safe provision of ATC.



## Increasing the width of the airspace

- 5.11 We propose to widen the airspace available to transit the CAS of this area to reduce MAC risks and improve options for emergency landings. This change will provide more space in a busy and narrow volume of airspace. A wider route will also allow pilots to avoid overflying populated areas, offering safer options for emergency landings in less urbanised areas.
- 5.12 Any modifications will carefully avoid interfering with existing flight paths, including the Instrument Landing System (ILS) approaches to runways at Liverpool Airport and Manchester Airport, and will maintain the necessary 500ft or greater vertical separation from flightpaths of aircraft operating inside CAS, as per UK airspace design policy.
- 5.13 The new boundary being proposed has been chosen in accordance with guidelines published in the [European Action Plan for Airspace Infringement Risk Reduction](#) which recommends that the design of airspace boundaries follow land-based, easily identifiable reference points. The new airspace boundary proposed is 0.65NM wider than the MLLR as shown in green in the images below.

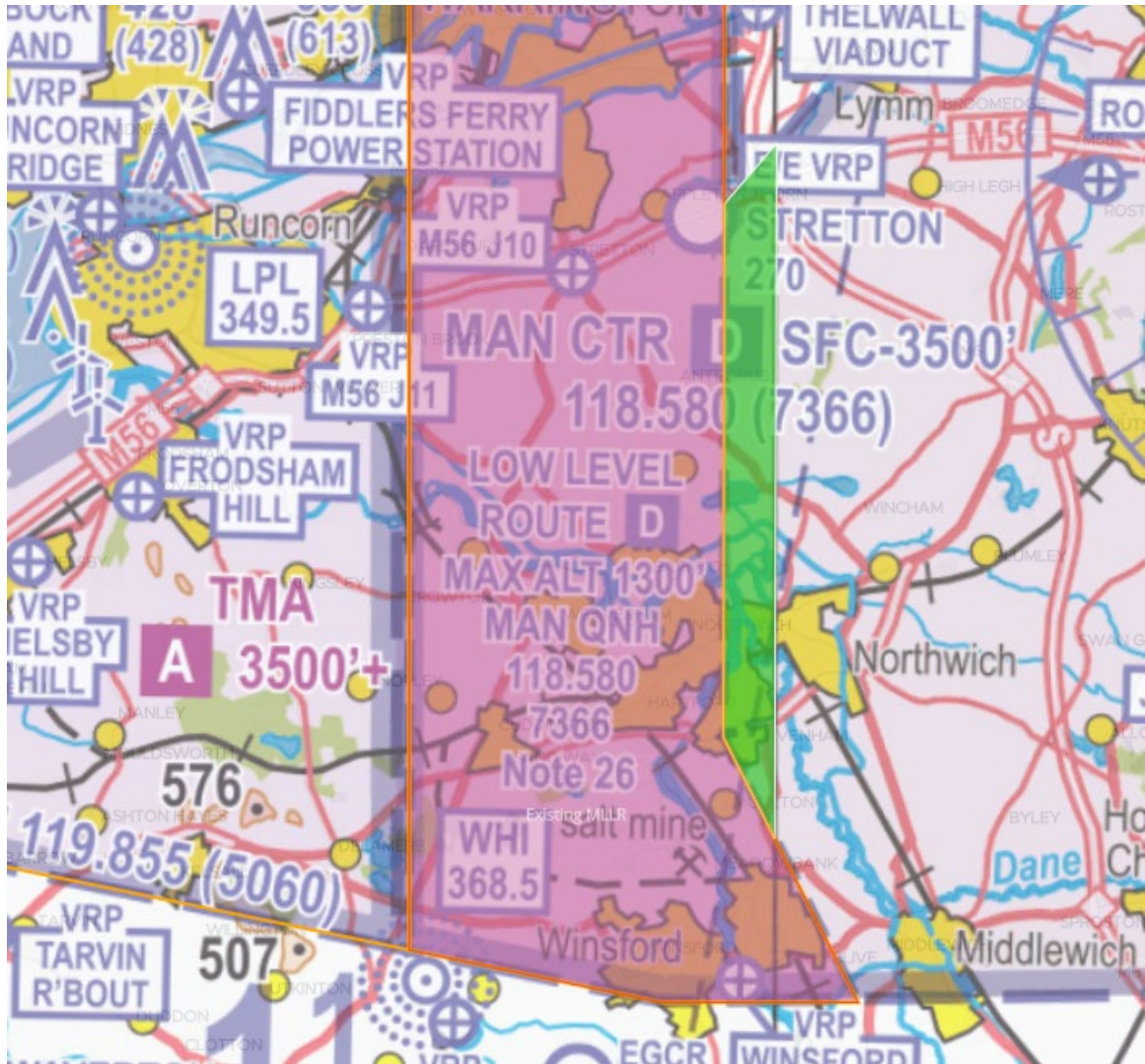


Figure 4 Visual depiction in green shading of extended areas of Class G airspace on VFR chart

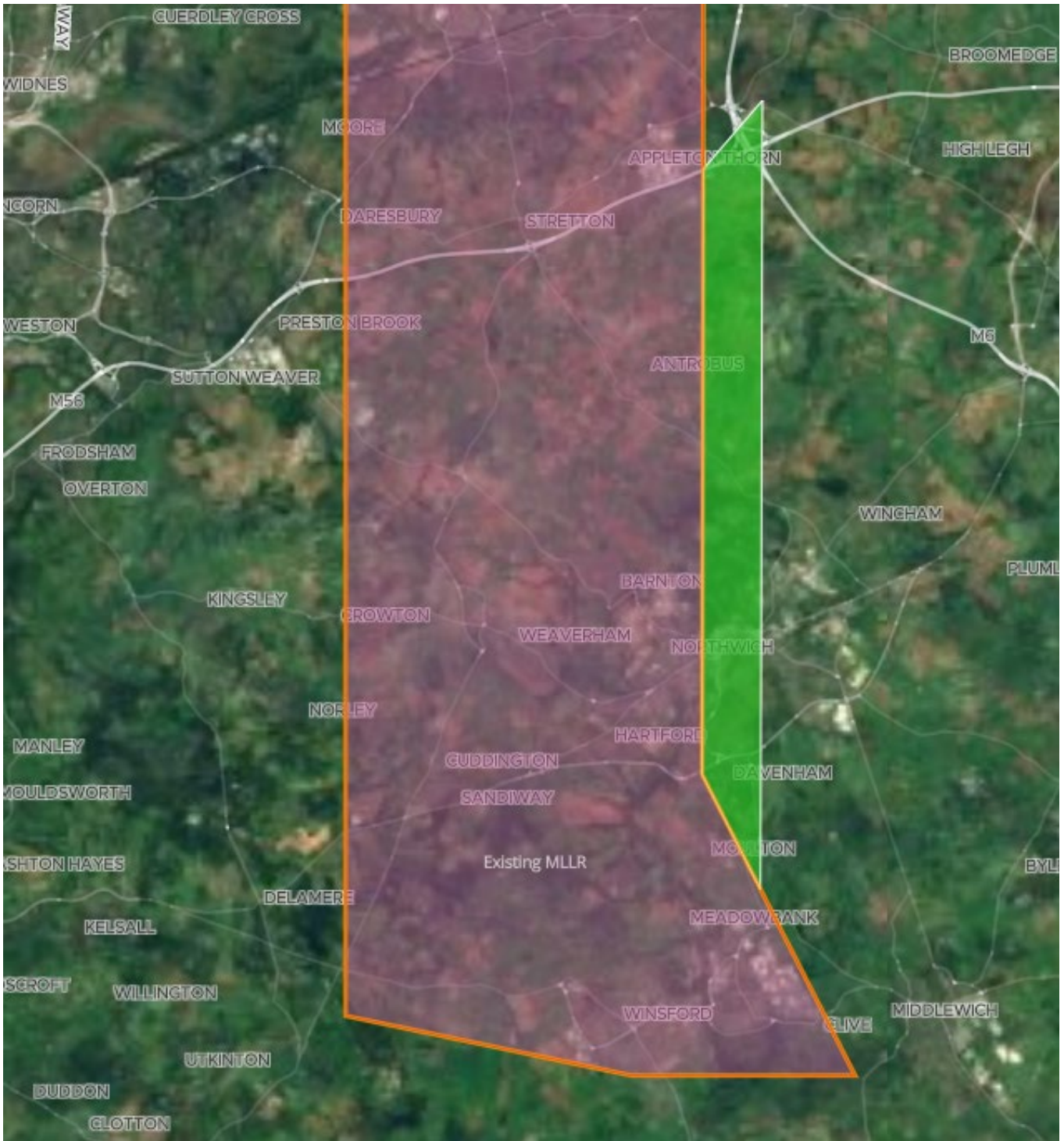


Figure 5 Additional Class G airspace shown in green overlaid on satellite image map

5.14 Our proposal aligns the new north-south boundary to the east of the airspace with multiple ground reference points, providing clear reference points to increase a pilot’s situational awareness, as well as resilience against GPS jamming, spoofing or device failure. The features aligned with are all visible on VFR charts (displayed above in Figure 4) and are:

- Thelwall viaduct – The viaduct is beyond the actual boundary to the north but is in line with the proposed new eastern edge and easily visible.

- A large motorway intersection of the M6 and M56 at the northern end of the boundary.
  - Budworth Mere – this body of water is in the central area of the newly defined boundary.
  - A railway T-junction in Northwich in the southern area of the boundary.
- 5.15 In addition to these ground reference points the new boundary is in alignment with the line of longitude 02°30'W. This makes it easy for pilots using a GPS device to remain outside CAS, as well as the line itself also being clearly displayed on VFR charts.
- 5.16 The widening of the MLLR achieves the following design objectives:
- A – Risk is lowered by providing more airspace overall for GA flights. This reduces congestion as well as providing a wider area for pilots to land safely in an emergency that previously was unreachable due to the lateral constraints of the MLLR.
  - B – Simplifying airspace by aligning with easily recognisable ground features and a displayed line of longitude
  - C – Alignment with ground features and a line of longitude is expected to reduce the chances of a lateral infringement by providing pilots with easy to spot visual clues to increase their situational awareness. This will make it easier for pilots to identify, and avoid, the CAS boundary.
  - D – Increasing the width of this volume of airspace aligns with our objective of maintaining or improving GA access.
  - E – By increasing the amount of Class G airspace available and reducing the amount of Class D airspace, CAS will be kept to a minimum.

## What would the airspace look like?

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- 5.17 As mentioned above, each of the core elements of this amendment are intended to form one whole proposed solution. This section explains how the airspace in this region will look if this solution is approved and implemented.
- 5.18 Figure 7 below shows our future design proposal for the Class D airspace of both Manchester CTR and Liverpool CTR (Liverpool remains unchanged) down to surface level. Between the two CTRs we propose to create a volume of uncontrolled, Class G airspace which will extend from surface level to altitude 1500ft.



Figure 6 Proposed design of Manchester and Liverpool CTRs showing Class G airspace between them

- 5.19 It is proposed that the Class G airspace between the two CTR blocks will also be defined as a Class G RA. This will permit the application of restrictions deemed necessary (see paragraphs 5. to 5.) to lower the risk of MAC, increase the ability to land safely in an emergency and also reduce the risk of an airspace infringement occurring.

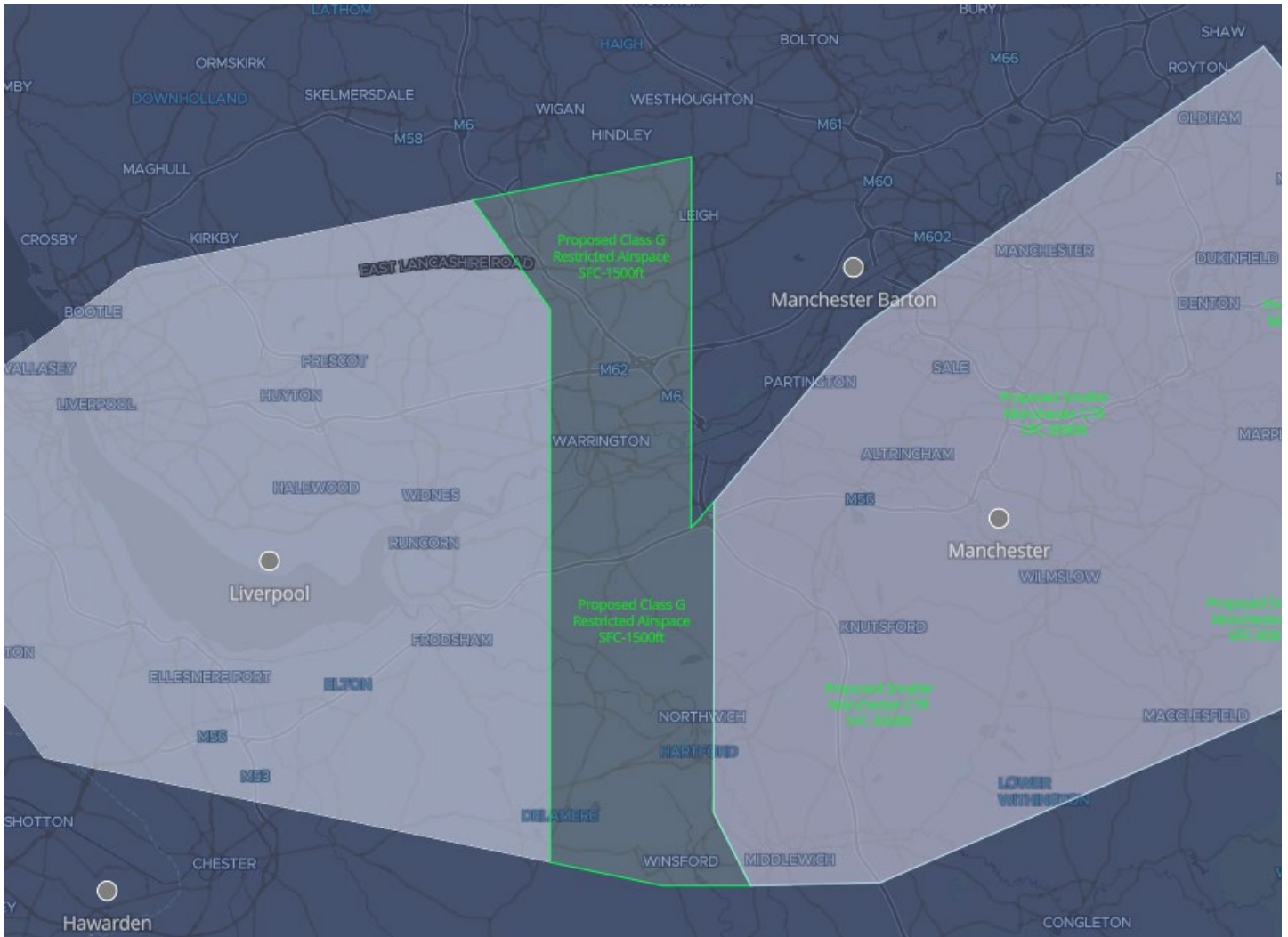


Figure 7 New airspace proposed including depiction of the restricted area

- 5.20 Figure 8 above displays the proposed Class G RA which includes the extra width proposed in the southern portion of the airspace.
- 5.21 All ATC procedures for handling air traffic both arriving at, and departing from, Liverpool and Manchester Airports will remain unchanged and as per current day operations.
- 5.22 The Class G RA will sit beneath former Manchester Class D CTR airspace which is proposed to now become Manchester Class D CTA 6 from altitude 1500ft to altitude 3500ft. The new formation of Manchester CTR and CTA airspace is proposed as illustrated below in Figure 9.

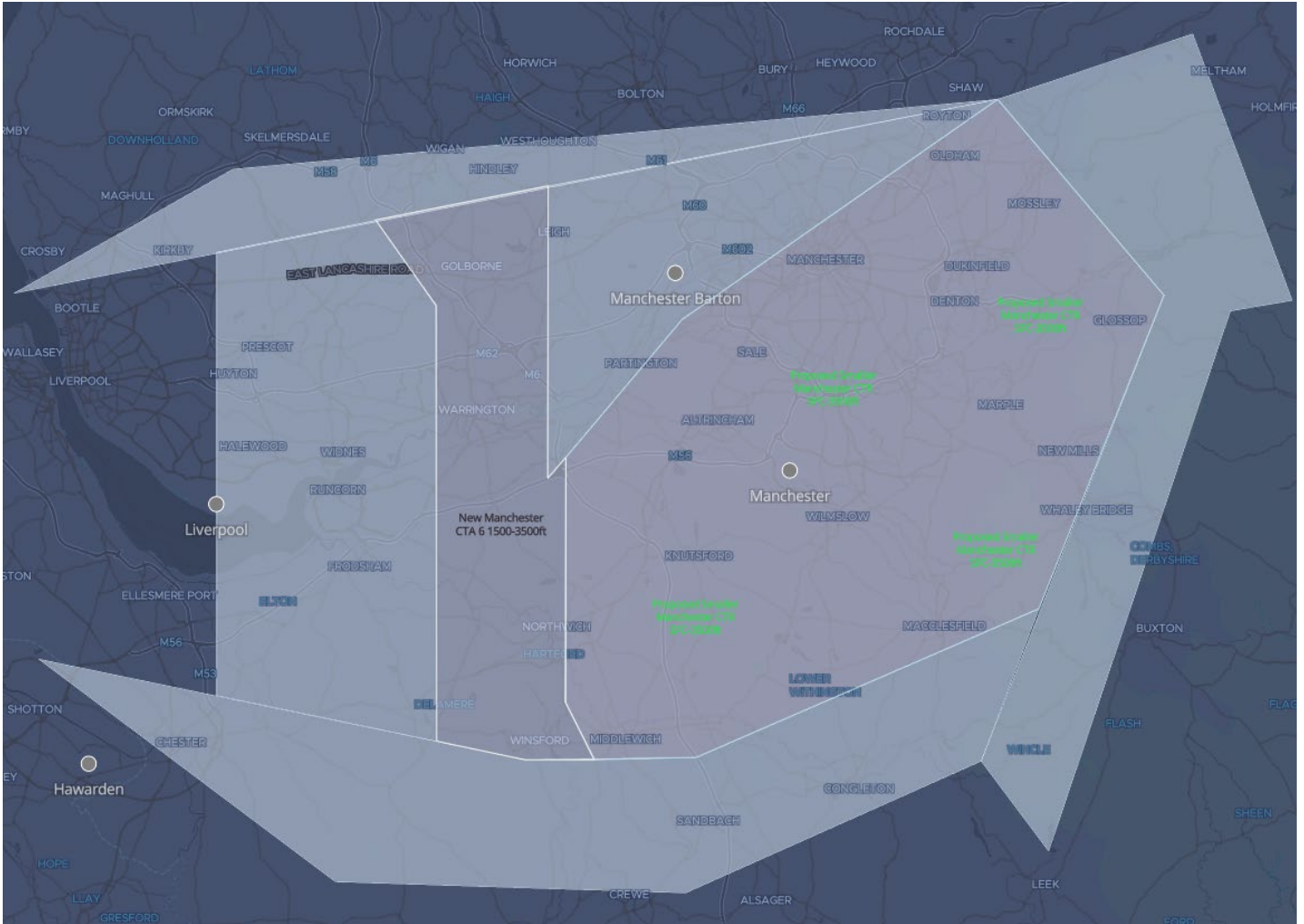


Figure 8 Proposed future design of Manchester CTR and CTA Airspace

## CHAPTER 6

# Effect of Proposal

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### Methodology

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- 6.1 To evaluate the potential impacts of the proposed amendment to our airspace, we have analysed current usage patterns and made projections about how these may change in the future by considering traffic forecasts in the UK. This approach allows us to assess the expected effects of the amendment and inform our decision-making process. It is important to note, however, that some of the information we are using to inform our decision is based on qualitative considerations rather than quantitative data.
- 6.2 Additionally, as an extension to the current Class D exemption is not possible, we are required to benchmark our proposal against the implications of reverting to full Class D restrictions. The analysis considers the significant constraints this would impose on traffic movements and the broader impacts on safety, efficiency and on the environment.
- 6.3 It is worth noting that at every step of this amendment process, we uphold safety as our utmost priority, in accordance with Section 70 of the Transport Act 2000, which mandates maintaining the highest standards of safety above all other considerations. However, while the primary driver for these proposed amendments is to lower identified safety risks, we continue to thoroughly evaluate and engage on all other aspects, looking to ensure that any potential impacts are well understood and, where possible, mitigated as far as possible.

### Safety

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- 6.4 The safety of all airspace users and the public is our top priority at the CAA. The proposed amendments will treat the safety issues and risks that have been identified with the MLLR and will enable us to meet our overarching design objectives. As a result, high standards of safety will be maintained, and the legal requirements set out in Section 70 of the Transport Act 2000 will be satisfied.
- 6.5 To ensure that the proposed amendment to our airspace would not have any negative impacts on safety in the surrounding controlled airspace, we conducted joint Hazard Identification (HAZID) sessions with both Manchester and Liverpool Airport's ATC units. These units are the airspace controlling authorities (ACA) for the airspace volumes on either side of the proposed changes and therefore the risk owners of the effects of this change.
- 6.6 Through these sessions, we identified, and thoroughly examined, all the hazards the proposed amendment may possibly introduce. The risks associated with each hazard were detailed and assessed to ensure that our proposed changes



maintain a high standard of safety. This included considering the potential consequences of each hazard and the likelihood of it occurring. The safety assurance work, using the HAZID sessions as its foundation, considered and demonstrated the impacts of our proposed changes on safety and confirmed that safety will not be adversely affected by our proposed changes.

- 6.7 Our own further analysis, beneath, and the results of the HAZID session, lead us to conclude that the proposed amendment will not have any negative impacts on safety.
- 6.8 The feedback received so far as part of our earlier stakeholder engagement has been extremely positive on our treatment of the identified safety issues and risks and our commitment to maintaining high standards of safety through the proposed changes.
- 6.9 There is an acknowledgement that maintaining the Class D classification with its required ATC service, would appear to meet the safety requirements that have been set out as part of this amend process. However, constraints on controller capacity will affect this service provision, resulting in the majority of airspace users being unable to access the airspace and being forced to overfly high ground of The Pennines to the east or the Irish Sea to the west. Both potential outcomes increase risk to flight and as a result do not meet the objectives that have been set out for this amend process.
- 6.10 This proposal aims to maintain or lower current ATC workload in the region with the goal of maintaining or improving safety. An expiry of the ORS4 exemptions and reversion to standard class D operation would be expected to significantly increase the workload of ATC at both Manchester and Liverpool Airports. In the event of the ORS4 expiring it is anticipated a high proportion of former MLLR users (at least 5,635 in 2023) would now request a clearance to enter CAS. This would significantly lower air traffic controller capacity to deal with current day traffic resulting in a degradation of safety barriers.
- 6.11 A reversion to standard Class D operation may also increase congestion, and therefore MAC risk, in the areas to the north and south of CAS as it is likely that aircraft would be instructed to remain outside CAS and await a clearance. This could result in an increase to aircraft orbiting in these areas.
- 6.12 A reversion to standard Class D operation would also increase the risk of airspace infringements. Any pilot unaware of the change in operating instructions for the airspace would inadvertently infringe airspace by following prior, and at that point, expired, MLLR procedures.
- 6.13 By providing extra Class G airspace we aim to reduce congestion for GA traffic which in turn lowers the MAC risk identified in our report into the MLLR. This extra airspace will also provide more options to pilots of aircraft requiring an emergency landing. Due to decades of urban spread within the conurbations beneath the MLLR these options can currently be limited. The extra width proposed within this work will mean more areas are accessible in an emergency.

This gain is even further enhanced by the extra altitude available to pilots which gives pilots an increased range in which to identify a safe landing site.

- 6.14 As stated earlier, the proposed RA and its restrictions, which must be adhered to prior to entry of the Class G RA, are in place to reduce MAC risk. This is achieved by providing pilots with as much time as possible in which to apply the see-and-avoid principles of VFR flight.
- 6.15 Airspace infringements are expected to reduce with the introduction of this proposal, further increasing safety in the area. The design of the airspace, the simplification of entry procedures and the increased visibility restriction will all aid pilots in maximising awareness of their location and position in relation to controlled airspace.

## The aviation community

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- 6.16 It is expected that this proposal will have a broadly positive impact on the aviation community when compared with allowing the ORS4 exemption to expire and the airspace returning to standard Class D operation.
- 6.17 When designing our proposal, we have focused on providing the same level of access to this volume of airspace while improving its safety. The change to Class G airspace not only achieves this by upholding current access levels but expands its volume both laterally and vertically benefiting the wider aviation community.
- 6.18 It is also expected to have a positive economic effect, especially on local GA airfields in the region by maintaining or improving access to them. By avoiding the reverting to Class D airspace this proposal helps ensure that these airfields can continue their current operations unhindered, supporting local economies and aviation businesses.
- 6.19 Operationally, costs are expected to remain consistent with current levels. However, it is important to note that if the airspace were to remain Class D but without the exemption, this would likely necessitate increased staffing to manage GA access, imposing significant annual costs on Manchester Airport. Operational flight costs such as fuel and maintenance for GA aircraft pilots and owners would also increase with the extra track mileage required to route around the large Class D volume in the likely scenario that ATC unable to provide a service.
- 6.20 The proposed changes are not expected to have any adverse impact on commercial traffic using Manchester or Liverpool airports. These aircraft do not currently use the existing MLLR or proposed extended volumes, and arrival and departure routes to these airports are unaffected by this proposal. We have worked closely with Manchester and Liverpool airports to ensure that this amendment still enables them to continue carrying out their ATC operations in a safe and sustainable way.

## Local communities

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- 6.21 The proposed amendment to the MLLR is not anticipated to have a significant impact on local communities. GA traffic numbers in the area are not anticipated to increase with this change and current forecasts predict GA flying to continue the current slow decline observed in GA hours flown regardless of these proposals.
- 6.22 While it is difficult to predict the net effect of these changes with certainty due to the unpredictable nature of GA flying activity, it is expected that any potential negative impacts will be minimal. Ultimately, we view this as a beneficial change for communities, enhancing safety within the MLLR. Safety concerns, notably MACs, pose risks not just to airspace users but also to persons on the ground. Enhancing aviation safety directly translates to increased safety for local communities, mitigating potential dangers and fostering a safer environment for everyone involved. This approach underscores our commitment to the well-being of both the flying community and the residents living under the flight paths.
- 6.23 The proposed widening of the MLLR to the east will involve areas that were previously outside its boundaries. While this change would allow GA aircraft to now fly over these communities, it's important to remember that these communities can be, and already are, overflown by larger commercial air traffic. Given this context, the impact on local communities under the expanded MLLR area is expected to be minimal. Commercial traffic and its routings will not be changed by this proposal and the consideration of GA aircraft, which are generally smaller and less noisy, suggests no significant increase in overflight activity or noise levels for these areas. The widening is also expected to distribute the GA traffic more evenly across the new volume of airspace further mitigating any potential noise and visual disturbances through dispersal.
- 6.24 Currently uncontrolled aircraft are permitted to fly within the MLLR up to 1300 feet. The proposed change would allow aircraft to fly at a higher level up to 1500ft. While we do not expect this change to result in significant changes to traffic or noise levels, it is possible that the amendment may result in a negligible change in the number of aircraft operating in the area. While any aircraft could be visible from the ground, given the levels concerned it is not expected to affect overall aviation noise.
- 6.25 For more information on the expected impact on noise by these proposals please see our Environment section, below.
- 6.26 It is worth noting that it is difficult to predict whether there will be more GA traffic outside of controlled airspace, as these flights do not require flight plans and can be influenced by various factors such as weather, cost, and the preferences of the pilot. After engaging with both internal and external stakeholders, we anticipate that the proposed changes will maintain approximately the current

volume of aircraft operations in the area. However, these changes will enable aircraft to fly in a more dispersed pattern and at slightly higher altitudes.

- 6.27 As Government policy requires controlled airspace to be returned to Class G when it is no longer needed at a higher classification, we do not believe it is right for this proposal to be affected by a lack of modellable data. However, we are inviting feedback through this engagement exercise on any anticipated increase in pilot activity resulting from this proposal. This would provide us with valuable additional information to help us draw up our final proposal.

## Environment

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- 6.28 The proposed amendment is not anticipated to have a significant impact, whether that be positive or negative, on environmental considerations such as tranquillity, biodiversity, air quality, noise, and CO2 emissions as there is no change expected to flight paths or levels (unless flying higher) of aircraft.
- 6.29 With regards to tranquillity and local air quality, there are no Areas of Outstanding Natural Beauty (AONB) or National Parks located inside of the boundaries of the MLLR, or the proposed new boundaries. Within the boundaries of MLLR, there are several Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), Ramsar sites (wetlands), and Local Nature Reserves. However, with the exception of the Witton Lime Beds (SSSI), these are already within the MLLR boundary and as such will not be affected by any of the proposed changes.
- 6.30 The Witton Lime Beds currently sit within controlled airspace and could be overflowed by larger commercial aircraft under Manchester ATC's discretion. However, with this area's proposed reclassification to Class G airspace, coupled with associated restrictions, any potential new overflights are likely to involve smaller aircraft and occur infrequently. This suggests a minimal impact on the Witton Lime Beds.
- 6.31 A reversion to standard Class D operating rules would likely result in large numbers of GA aircraft routeing around the controlled airspace. This would mean overflight of multiple environmentally significant sites (SSSI, Nature reserves and SAC) being overflowed as well as The Peak District National Park to the east and to the west, the Clwydian Range and Dee Valley AONB, and RAMSAR sites such as the Dee, and Ribble and Alt Estuaries.
- 6.32 Measuring noise from GA presents challenges due to its variable nature. Despite this, given that air traffic is observed to be concentrated closer to the centre of the MLLR, and is expected to remain so after the proposed airspace reclassification, only a minimal number of flights are anticipated to fly into the newly designated areas. The proposed amendment would also allow airspace users to fly at an increased altitude of up to 200ft higher, which is anticipated to be used by many aircraft. However, this slight change in operational altitude is unlikely to have any noticeable impact on the environment.

- 6.33 We anticipate exceeding 65 dB LAmax in the new areas will be infrequent, occurring less than once a week, based on our expected aircraft numbers and distribution. The threshold of 65 dB LAmax is significant as it marks the level at which noise can start to impact communities noticeably. This rarity indicates that the projected changes are unlikely to lead to any significant adverse noise effects on the local environment.

## CHAPTER 7

# The Engagement Process

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## Engagement Exercise Duration

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- 7.1 Taking into account the size of both the volume of airspace and the proposed amendment to it, and the level of engagement already undertaken by the CAA's Airspace Classification team, this engagement exercise will last eight weeks, commencing on 21 May 2024 and finishing on 16 July 2024.
- 7.2 We are confident that this time frame is adequate for stakeholders to thoroughly review and provide their feedback on the proposal, while also being proportional to the scale of the amendment.

## What is being asked

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- 7.3 This engagement exercise is being conducted by the CAA's Airspace Classification Review Team. The purpose of this engagement exercise is to provide an opportunity for all stakeholders, to express their opinion and comment on the proposed amendment to the MLLR. It is also an opportunity for the CAA to take into consideration stakeholder's views in the formulation of the final proposal to be submitted to the CAA's Airspace Regulation team for determination.

## How to respond

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- 7.4 The CAA will oversee the engagement exercise to ensure it adheres to CAP 1991 and Department for Transport guidelines. In accordance with CAP 1991, this engagement exercise is undertaken through electronic communication, and it is requested that all responses be entered through Citizen Space to provide visibility to all stakeholders and all responses.

<https://consultations.caa.co.uk/safety-and-airspace-regulation-group/proposed-amendment-to-mlr>

**The engagement exercise closes at midnight on 16 July 2024**

- 7.5 You are invited to respond using the online Citizen Space response form, available at the above website link.

7.6 If you do not have access to the internet or have any difficulty in responding electronically, you may send your responses by letter to the following address, using the form at Appendix B and return to:

**MLLR Amendment Engagement  
Airspace Classification Department  
UK Civil Aviation Authority  
Aviation House  
Beehive Ring Road  
Crawley  
RH6 0YR**

7.7 To ensure that a transparent engagement process is maintained, all responses submitted by post will be uploaded to the Citizen Space website.

7.8 If you have any questions, please contact us at [airspace.classification@caa.co.uk](mailto:airspace.classification@caa.co.uk).

## CHAPTER 8

# Next steps

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- 8.1 Throughout this engagement exercise, your responses will be monitored, collated and assessed.
- 8.2 After the engagement period closes, the CAA's Airspace Classification team will collect, carefully analyse and categorise all responses that have been received during the engagement exercise.
- 8.3 An engagement response document will be published to set out clearly where any issues raised have been tackled and how they have been resolved. It will also confirm, based on engagement feedback, the option to be submitted to Airspace Regulation or where changes have been made as a result of feedback, to the final design.



## APPENDIX A

# Glossary

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## Above mean sea level (AMSL)

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A standard measurement for elevation or altitude used in aviation, indicating the height of an object, point, or airspace above the average sea level

## Aeronautical Information Publication (AIP)

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An official document which contains comprehensive information on air navigation facilities, procedures, services, and rules necessary for aircraft operation within a country's airspace.

## Airspace Analyser Tool (AAT)

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Software used by the CAA to assess the usage and classification of airspace in the UK, which provides a view of current and historic airspace usage by user type. The tool collects and analyses data on the types of aircraft using specific areas of airspace, the frequency and altitude of their flights.

## Airspace Modernisation Strategy

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The CAA and the Department for Transport's program aimed at updating the UK's airspace infrastructure to accommodate increasing air travel demands. The strategy's objectives include increasing airspace efficiency, improving flight punctuality, reducing CO2 emissions, minimizing noise pollution, and ensuring adequate future capacity.

## Air traffic control (ATC)

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A service provided by ground-based controllers who direct aircraft on the ground and through controlled airspace and can provide advisory services to aircraft in non-controlled airspace.

## CAA

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A government body responsible for regulating civil aviation in the UK and the proposer of this amendment to airspace.

## CAP

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Civil Aviation Publication - Publications produced by the CAA

## Class D airspace

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Controlled airspace where both IFR (Instrument Flight Rules) and VFR (Visual Flight Rules) flights are permitted and all flights are subject to air traffic control service.

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## Class G airspace

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Uncontrolled airspace where air traffic control does not provide services and communication is not typically required, though it's often monitored for safety.

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## CTR

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A controlled airspace extending upwards from the surface of the earth to a specified upper limit, established to protect airport traffic during take-off and landing.

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## Control Area (CTA)

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A block of controlled airspace that provides protection to a specific part of an airway.

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## Controlled airspace (CAS)

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Airspace in which air traffic control services are provided to ensure the safe and orderly flow of aircraft.

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## Electronic Conspicuity

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Technology that helps pilots, unmanned aircraft operators, and air traffic services be aware of other aircraft in their vicinity. EC includes devices on aircraft and unmanned systems that transmit information, as well as the supporting infrastructure to make the system work. The goal of EC is to improve the "see and avoid" principle by adding the ability to "detect and be detected."

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## Flight plan

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A document that outlines the planned route and details of a specific flight.

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## General Aviation (GA)

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All non-commercial, non-military aviation activities, including private and business flying, flight training, and various other aviation services. It encompasses a wide range of aircraft and operates from a variety of airports and airstrips.

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## HAZID

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A meeting conducted using ATC safety specialists and air traffic controllers who work the airspace involved in the proposal to identify any safety risk(s) which potentially may be introduced with any change.

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## Indicated Air Speed (IAS)

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The airspeed read directly from an aircraft's airspeed indicator, unadjusted for pressure or temperature variations.

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## Instrument Approach Procedure (IAP)

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These are predetermined flight paths and procedures that planes follow when approaching an airport to land.

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## Instrument Flight Procedures (IFP)

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A series of pre-determined manoeuvres for the orderly flow of air traffic operating under instrument flight rules, which includes standard approaches, departures, and en route procedures.

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## LAm<sub>ax</sub>

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The highest level of sound measured during a single noise event, reported in decibels (dB). Represents the peak loudness in a given period.

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## Maximum certificated take-off mass (MCTOM).

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The maximum permissible take-off mass of the aircraft according to the certificate of airworthiness, the flight manual or other official documents.

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## QNH

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An altimeter setting that allows the pilot to measure altitude above mean sea level. It is used to calibrate the altimeter to reflect atmospheric pressure variations.

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## Restricted Area (RA)

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A defined area volume of airspace where the flight of aircraft is restricted in accordance with certain specified conditions.

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## Squawk

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A four-digit code given by air traffic control, entered by pilots into the aircraft's transponder, which helps controllers identify the aircraft on radar.

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## Standardised European Rules of the Air (SERA)

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The regulations that standardise various operational and technical aspects of civil aviation. They are part of the UK's adoption of European-wide standards aimed at harmonising the rules for civil aviation across different states, particularly regarding flight rules and the operation of aircraft, to enhance safety and efficiency in the European airspace.

# Engagement survey questions

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1. Are you responding in an official capacity on behalf of an organisation?

- Yes
- No

If yes, please tell us its name.

2. What is your name?

3. What is your email address?

4. Are you answering as:

- Resident affected by aviation
- Airline passenger
- Member of the General Aviation community
- Unmanned Aerial System
- Member of the commercial aviation industry
- Central or local government body including military
- Elected political representative e.g. councillor or MP
- National representative organisation e.g. trade association
- Local organisation e.g. community action group

5. Do you consent to your response being published on this consultation website?

- Yes, with personal identifying information (name, organisation, respondent category, location, additional information - please note your email address will NOT be published if you choose this option)
- Yes, anonymised
- No

6. What are your views on the proposal to reclassify the MLLR to Class G uncontrolled airspace?

- Strongly support
- Support
- No strong feelings either way

- Oppose
- Strongly oppose

7. What are your views on the proposal to raise the altitude of the MLLR from 1300ft to 1500ft?

- Strongly support
- Support
- No strong feelings either way
- Oppose
- Strongly oppose

8. What are your views on the proposal to implement a Restricted Area covering the MLLR?

- Speed restriction:
  - Strongly support
  - Support
  - No strong feelings either way
  - Oppose
  - Strongly oppose
- 5km visibility
  - Strongly support
  - Support
  - No strong feelings either way
  - Oppose
  - Strongly oppose
- QNH
  - Strongly support
  - Support
  - No strong feelings either way
  - Oppose
  - Strongly oppose

- Weight restriction of 40,000kg or less
  - Strongly support
  - Support
  - No strong feelings either way
  - Oppose
  - Strongly oppose

9. What are your views on the proposal to increase the width of the MLLR to the east?

- Strongly support
- Support
- No strong feelings either way
- Oppose
- Strongly oppose

10. Do you have any concerns about the safety of the airspace if the proposed amendment is implemented?

- Yes
- No
- Do you have any concerns about the safety of the airspace if the proposed amendment is implemented?

11. Do you have any concerns about the impact on local communities or the environment if the proposed amendment is implemented?

- Yes
- No

12. If implemented, how likely is that this proposed amendment would increase how often you fly in this area?

- Extremely likely
- Likely
- About the same
- Unlikely
- Extremely unlikely
- N/A

13. Are there any additional considerations or issues that you believe the CAA should take into account when deciding on its final proposed amendment?