

Amend Statement – Manchester Low Level Route

CAP 1991 Amend ID: CRA-1991-2023-002

Executive Summary

The Manchester Low Level Route (MLLR) currently operates under an ORS4 exemption, detailed within ORS4 No 1545, allowing non-standard provision of air traffic control (ATC) services in class D airspace. This exemption expires on 31st May 2024. Within the exemption it is stated “An exemption is not a permanent solution to enable the operation of this volume of airspace”.

Also written within the ORS4 is a commitment from the UK Civil Aviation Authority (CAA) to consider the classification of this airspace as part of its airspace classification review process. We therefore completed a thorough and comprehensive review of the MLLR airspace and in July 2023 published our report on the MLLR ([CAP 2564](#)). This report identified that, whilst the airspace was in no way deemed to be unsafe, a number of risks were present within the airspace and that improvements could potentially be made to lower risk in the area.

It was therefore identified that the MLLR airspace is suitable to be taken through to the “Amend” stage of our procedure to review the classification of airspace ([CAP1991](#)). The production of a requirements statement in October of 2023 formally began this stage of the procedure and this Amend Statement builds on that previous document by providing specific detail on how this may be achieved.

Scope of Amend Statement

This Amend Statement is to be presented to the Airspace Controlling Authority (ACA) of the MLLR airspace and key stakeholders who will be affected by the proposed changes to airspace in this area.

It will include details of the initial impact assessments, as well as further information on how the issues raised in the Requirements Statement document are intended to be addressed.

Issues to be addressed

Figure 1 Map showing the location of MLLR airspace which is highlighted with pink shading in the centre of the image



The Requirements Statement identified the following issues within the MLLR airspace which are intended to be addressed by this Amend proposal:

- Mid-Air Collision (MAC) risk – due to the restricted dimensions and high usage of this volume of airspace.
- Land safely in an emergency – due to urban spread since the MLLR’s inception it is now difficult for a pilot to land clear of populated areas should the need arise.

In addition to these risks [CAP 2564](#) also identified that the current day operation of the MLLR is perceived by some aviators as complicated and can cause difficulties to aircraft with one radio who are wishing to leave the MLLR to the east or west.

We also regard an exemption to be just that – a time limited solution to a temporary issue. It is, therefore, not appropriate to extend this exemption and this airspace must be brought into alignment with standard UK airspace policy.

Impact Assessments

On October 4th 2023, a meeting was held between Liverpool Airport, Manchester Airport Group, NATS Manchester and the CAA, to discuss the proposed solutions that we are considering as part of an airspace design solution. Following this meeting, stakeholders were asked to provide an Initial Impact Assessment (IIA). Subsequently, two IIA documents were received: one from Liverpool Airport and a combined submission from Manchester Airport and NATS.

Key Points Raised

Below are the key points raised in the IIA documents received.

Will a solution affect today's ATC operation – i.e. require changes to approach and departure paths?

We are intending to design a solution which conforms to UK Policy for the Design of Controlled Airspace Structures which will ensure the containment policy of today's ATC operation is not affected.

Will the CAA proposed design influence and affect the ongoing FASI-N ACP design solutions that both Manchester and Liverpool Airports are working toward?

We are proposing this solution as an independent design from any FASI-N airspace designs. It is not intended, or expected, that any future designs must include this solution.

However, under our CAP1616 airspace change process, there is a requirement for change sponsors to consider equitable access to airspace. Consequently, it's expected that any future design plans would consider provisions for safe transit and access between Manchester and Liverpool airports.

Will current ACP work have to be repeated/changed because of the MLLR work?

We do not anticipate that this process will necessitate any change sponsor to revisit any work already submitted for prior stages of their respective CAP1616 process.

While, we acknowledge that this work will cause a change to baseline predictions we do not see this to be a barrier to either this amendment or any existing ACP. The expiry of the ORS4 on 31st May 2024 will already result in the baseline changing and there is a provision within CAP1616 to address this type of change.

Is there scope for the CAA solution to be implemented as part of the FASI-N project and its associated implementation dates?

No. The issues identified in [CAP 2564](#) exist today and it is important to address them at the earliest opportunity. We will not join, and therefore influence, future airspace designs associated with the FASI-N project.

How will the CAA ensure there is no negative safety impact on current commercial and ATC operations?

We are the UK's independent aviation safety regulator and as stipulated in Section 70 of the Transport Act 2000, we must exercise our air navigation functions to maintain a high standard of safety in the provision of air traffic services. Our approach is impartial, ensuring no stakeholder group's safety is prioritised over another.

Each proposal in our proposed amendment will be subject to a full and thorough hazard

identification and safety assessment process that will be conducted by Manchester and Liverpool as the risk owners for this change. This is set out in CAP 1991 and will ensure that the final design maintains an acceptable level of safety for all stakeholders.

Can the current ORS4 be re-issued or extended?

No. As stated earlier in this document an exemption is a time limited solution and, should no further solution be proposed to the MLLR, will expire on 31st May 2024. This Amend process aims to be that solution and it is agreed that an extension of the ORS4 will be granted to align with any successful implementation of our proposal.

Proposed Solution Elements

The proposed elements of a change are:

- Reclassification to class G airspace.
- Raising the altitude available to 1500ft. A reclassification will create a CTA above class G airspace with a lower limit of 1500ft AMSL.
- Implementation of a Restricted Area (RA) with associated restrictions.
- Widening the MLLR – in particular to the east of its current design.

Following the IIA submissions we have studied each document and discussed the content internally with relevant CAA departments such as ATM Policy and Airspace Regulation to ensure the suitability of each element for inclusion in any future proposal. We then provided a formal response to stakeholders with our feedback on their document and, with permission, shared the IIA of the other stakeholders.

After considering the IIAs and relative feedback from internal departments it is the intention of this project to take forward all the proposed elements to the HAZID stage of the process.

Reclassification to Class G

Addresses:

- Perceived complication of existing MLLR procedure
- Difficulty to aircraft leaving the MLLR to the east and west
- Non standard operation of class D airspace through an ORS4 exemption

It is proposed that this element be taken to HAZID as it provides the basis for a simple access policy to the airspace currently defined as the class D airspace of the MLLR.

Raising the altitude available to 1500ft

Addresses:

- MAC risk
- Land safely risk
- Alignment with UK airspace design policy

It is proposed that this element be taken to HAZID as it addresses the points above by providing more airspace in which to accommodate GA flight between the CAS structures of Manchester and Liverpool Airports. Also, by providing extra altitude in which to fly this may enable more options to land safe in an emergency by providing more gliding time.

UK Policy for the Design of Controlled Airspace Structures

By creating a CTA with a lower limit of 1500ft above class G airspace, this element of the proposal aligns with UK policy which states, “a CTA adjoining a CTR should have a minimum lower limit of 1500ft to allow for VFR flight to pass below the CTA”. A 1500ft lower limit of CAS also provides the required 500ft vertical containment between the lower limit of CAS and any IFPs or ATS routes within it, as specified in Appendix B2 Policy, B2.3.

Implementation of a Restricted Area

Addresses:

- MAC risk

It is proposed that this element be taken to HAZID as it permits the application of restrictions which provide mitigations to MAC risk. The lowering of this risk is a key aim of this proposal.

The restrictions we are currently seeking (but may be subject to change) are:

- Speed restriction of maximum 140kts IAS decreasing MAC risk by increasing the time available to implement see-and-avoid principles of VFR flight.
- In flight visibility of 5km or more, again decreasing MAC risk by increasing the time available to implement see-and-avoid principles of VFR flight.
- Adoption of a Liverpool QNH for flight beneath the newly formed CTA. As Liverpool traffic will routinely be the closest operating to the new lower limit of the CTA it is pertinent to implement this to reduce the risk of a QNH pressure difference reducing the vertical distance between aircraft.
- Wake turbulence category restriction

Increasing the width of the MLLR

Addresses:

- MAC risk
- Land-clear risk

It is proposed that this element be taken to HAZID as it increases the amount of airspace available to aircraft operating within what CAP2564 identified as a busy volume of airspace with restrictive dimensions. A wider volume of airspace may also allow pilots to avoid overflying built up areas and should the need arise, perform an emergency landing in a non-populated area not previously available in today’s MLLR operation.

Any designed option for this element will be ensured to remain below the ILS paths of approaches to runway 27 at Liverpool and both runway 05 left and 05 right at Manchester. It will also remain clear of current day standard departure routes from Manchester and continue to provide them with the required 500ft between an IFP and the lower limit of controlled airspace as required in UK Policy for the Design of Controlled Airspace Structures.

HAZID

HAZID sessions are to be held on the 8th and 9th of January 2024. During these sessions, all design elements outlined in this Amend Statement, as well as the ‘do-nothing’ option of letting the expiration of ORS4 and reverting to standard class D rules, will undergo a thorough review. This assessment, conducted by the risk owners and subject matter experts, aims to ensure the continued safety of air traffic operations in and around the MLLR.