Manchester Low Level Route – Joint MAG/NATS Impact Statement

Prepared by:
MAG Future Airspace Team and NATS Manchester ATC 1st November 2023

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1. Introduction

This Impact Statement has been prepared jointly and reflects the views and opinions of Manchester Airport in relation to the CAA proposals to amend the Manchester Low Level Route (MLLR). It combines a NATS ATC impact assessment against current operations, with a MAG Manchester impact assessment against the future airspace proposals being developed by the ongoing Level 1 airspace change proposal (ACP) as part of the FASI project.

Currently the Manchester Low Level Route (MLLR) is Class D airspace operated with an exemption to the standard rules for accessing CAS. The exemption is detailed in ORS4 No 1545 which expires in May 2024. As part of the CAA's Airspace Classification Review procedure, a detailed investigation of airspace usage and classification within MLLR has been conducted, which has led to the CAA proposing a number of amendments to both the dimensions and operating procedures in respect of the MLLR. The CAA has stated that the aim of these is to identify near term changes that may improve access and transit though the MLLR, prior to the implementation of any change enabled by the ACPs.

These proposed amendments were tabled by the CAA at a meeting attended by representatives from both Manchester (MAN) and Liverpool (LPL) airports on 4th October 2023. Following concerns being expressed, the CAA requested an impact statement be prepared by both airports. For MAN, this has been prepared by the NATS Manchester and MAG Manchester Future Airspace teams. Needless to say, both MAN and LPL will wish to have regard to each other's impact assessment and to make any additional submissions that arise out of this review.

The criteria for the impact assessment are:

- Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.

- Future Airspace (MAG Manchester): Any resultant change from the review of the MLLR should not impact the design options approved within the MAN ACP Stage 2 submission, or have the ability to influence the resolution of design interactions between MAN and LPL.

In detailing the impacts of the CAA's proposals for MLLR, this impact statement is structured as follows:

- Section 2 provides a high level overview of the operational context for the MLLR.

- Section 3 details the key concerns arising from the interaction of the proposals for the MLLR with the ongoing ACP at MAN.

- Section 4 summarises the MLLR proposals tabled by the CAA.

- Sections 5 to 9 provide an analysis of those proposals, as well as the proposals previously discounted.

- Section 10 sets out the key conclusions arising from this impact statement.

2. Operational Context

The Manchester Low Level Route was reviewed by CAA in July 2023, as reported in CAP2564. By way of history, the current ruleset for flights in the MLLR (colloquially known as autonomous flight) took many months to become embedded after it was introduced in May 2021. From the outset, numerous infringements were recorded for 'technical' reasons, such as failure to select the correct SSR code or to monitor the Manchester radar frequency. Difficulties were also experienced by aircraft wanting to cross the MLLR east to west, or vice versa.

A process of engagement and education since this time has resulted in these infringements diminishing significantly and as of October 2023 the ruleset is working effectively and as intended. Technical infringements are now infrequent, believed to be primarily due to pilot familiarity with procedures and the common understanding between Manchester (MAN) and Liverpool (LPL) ATC to ease the previous difficulties with east to west crossings.

In the last 6 calendar months there have only been 8 'technical' infringements of the MLLR due to an incorrect SSR code, and a significant number of these have been due to late selection of the required SSR code. In this period there have been no infringements where the cause has been found to be associated with the current airspace dimensions. Given the improvements made in safety performance, MAN consider it would be prudent to allow these arrangements to continue until the CAP1616 ACPs for both airports are implemented.

Whilst current operations are the focus of this change, it is important to recognise that both MAN and LPL airports have ACPs underway within the CAP1616 process, both of which are part of the FASI MTMA deployment cluster. Subject to the approval of the ACPs, this will result in changes to the SIDs and arrival routes for both airports to the airspace surrounding the MLLR, and which may result in an opportunity to change either the design or classification of the airspace within which the MLLR sits. However, both ACPs are part of a wider programme and will not be implemented before the expiry of the current ORS4 exemption applied to the MLLR. In that context, it is acknowledged that the CAA's proposals are intended to offer a short to medium term solution for this airspace.

3. Future Airspace Considerations

As stated above, MAN are developing an ACP within the CAP1616 process under ACP-2019-23, and once approved, this will be implemented as part of the FASI MTMA deployment cluster. In line with the requirements of CAP1616, the MAN Stage 2 submission took account of current airspace constraints and considerations and developed a comprehensive list of options based upon these foundation assumptions.

The process refined these options via the DPE and IOA to produce a shortlist, and both this and the comprehensive list were contained in the MAN Stage 2 submission approved by CAA on 31st March 2023. This ACP is now at Step 3a, and therefore any review of the airspace in the vicinity of MAN has the potential to impact future work, and the work already undertaken as part of the Stage 2 submission. Whilst MAN does not anticipate a need to revisit that work and can take account of the MLLR proposals in their emerging Step 3a proposals, the potential for interactions has to be acknowledged.

Therefore, from a MAN future airspace perspective it is important to highlight to the CAA that:

a) Although the identification and implementation of changes to the CAS surrounding MAN has the potential to fall within the scope of the ACP, producing a long term operational solution for the MLLR was not identified as part of the SoN underpinning the ACP. Rather, the ACP will define the airspace required to safely contain the instrument flight procedures created within the ACP, providing an opportunity for unused airspace to be reclassified. This does not extend to a requirement to create operational procedures for how that airspace is used by GA.

b) The Manchester Stage 2 submission acknowledged the work of the CAP1991 team and gave an undertaking to continue to work with the team within in Stage 3, but at the time of CAA approval, no proposals for the MLLR had been tabled by the CAP1991 team. Therefore, whilst the validity date of the ORS4 was known, there was:

   - No indication that extending this dispensation was not an option.
   - No comment from CAA in response to the MAN Stage 2 submission to indicate that MAN would need to assume responsibility to consult and engage on the long term solution for the MLLR as part of ACP-2019-23.
   - No indication to stakeholders that arrangements for the MLLR would change either in the short term or the long term.

   The CAA has not yet made it clear as to where the responsibility for implementing the long term solution for the MLLR would be proposed to lie. The MAN view is that it would be premature to define the future MLLR operating model within the current FASI ACP at MAN. Rather, this ACP should continue unchanged, which will allow the future routes and controlled airspace dimensions to be defined. The changes to the MLLR could then be pursued under a separate ACP, which would allow the CAA, MAN and stakeholders to understand and explore how the MLLR can be best integrated with the preferred ACP solution, and for the views of these stakeholders to be properly gathered and considered.

c) The MAN design principles require alignment to the AMS which includes a provision to consider equitable access for all airspace users, and to ensure the amount of CAS is kept to a minimum for the safe provision of ATS. However, the AMS also highlights the need to ensure safety for commercial air transport flights, and the need for an appropriate balance between different operational requirements. MAN remain concerned that the timing and

scope of certain short term options for the MLLR place a focus on GA operations that is not in line with this balanced approach, and which could impact baselines and current commercial ATC operations in order to maintain safety.

d) MAN is concerned that the proposed changes could impact upon the Manchester Airport ACP including the alteration of baseline traffic and airspace options on which the Stage 2 approval by the CAA was based.

   Furthermore the timing of this work has the ability to adversely influence the design and outcomes of discussions to resolve design interactions between MAN and LPL as part of CAP1616 and CAF. Specifically, a number of the proposed approaches would eliminate options to safely resolve design conflictions and may require either or both sponsors to seek alternative solutions that are either less fuel efficient or change the number of people affected by noise.

e) Through these proposals, the CAA would become an ACP sponsor within the MTMA and have the ability to influence traffic below 7,000ft without being part of the FASI programme, or having been involved in previous stakeholder engagement. This creates risks for both airports and the MTMA as the MLLR proposals are being made without a full understanding of:

   - the ACPs of the airport sponsors;
   - the analysis carried out to date by those sponsors;
   - discussions being undertaken to resolve design conflicts between MAN and LPL as part of CAF nor
   - the views of local stakeholders who may, as a consequence of the CAA's MLLR decision be negatively impacted by aircraft noise.

   This builds risks and uncertainty into the long term airspace solutions for both airports and has potential to conflict with the approved Stage 2 submissions for both airports, which may introduce an unacceptable time delay and cost to resolve.

f) Due to the potential impact on the ACP, the timing of the changes being made to the MLLR dimensions has the potential for non-compliance with CAP1991 paragraph 111, which states: *For the purposes of this exception, we will assess each case on its merits taking into account the circumstances. For example, we need to ensure that any classification change aligns with, and does not jeopardise, the wider airspace modernisation programme, including future plans, impending national or international regulatory obligations and knock-on effects to adjacent airspace. If we see a case for proceeding, we will include it in our plan. In no instance would adding the volume of airspace to our plan impede the progress of the airspace change proposal.*

The MAN Stage 2 submission provided an undertaking that CAS will be considered in Stage 3 activities, and we will therefore seek to identify at that Stage whether changes to CAS classification or dimensions have the potential to deliver benefits to stakeholders. However, further understanding is required of the impact to the CAP1616 process at both airports, and the responsibilities for implementing a long term solution for the MLLR as outlined in point b) above.

4. MLLR Proposals for consideration

The meeting held at the CAA regional office in Manchester on 4th October 2023 concluded that the 4 options below were to be considered for the MLLR, all of which include a change in airspace classification to class G:

1. Class G, raise height to 1500ft, widen and speed restriction
2. Class G, raise height to 1500ft and speed restriction
3. Class G, widen and speed restriction
4. Class G and speed restriction

This impact statement considers all of the above options, commencing with the common change to Class G airspace before addressing the individual suggestions in relation to lateral and vertical dimensions.

5. Class G

5.1. Conversion of MLLR airspace to class G

On the basis of the below assumptions, the proposal to change the MLLR to class G airspace is supported by Manchester ATC and would not have an impact on the solutions being developed as part of the ACP.

It has been assumed that in this scenario:

- Standard UK FIS would be provided in the same manner as any other class G airspace in the vicinity of Manchester, and the duty of care for assisting with the prevention of mid-air collisions by both MAN and LPL radar would remain.

- As a proactive measure, MAN would expect that education to the GA community for use of published Frequency Monitoring Codes (FMCs) would continue. Whilst this is not mandatory, the proximity to MAN and LPL airspace makes the use of FMCs very important in the prevention and timely resolution of infringements.

The benefits of this proposal have been assessed as:

- A reduction in technical infringements caused by entering airspace without following the applicable ruleset.

- No reduction in either the vertical or lateral separation between GA traffic and commercial traffic operating to and from MAN and LPL airports. Both of the CAA proposals for the widening and the raising of vertical dimensions which are assessed in sections 6 and 7 may create this risk of reducing separation.

- No impact on the design options, or the resolution of design conflicts being undertaken as part of the ACPs for both LPL and MAN. This proposal is therefore in alignment with CAP1991.

Further to this suggestion, Manchester would support a TMZ/RMZ portion of class G airspace to assist in the prevention of infringements and mid-air collisions.

Assessment

Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	MET
Future Airspace (MAG Manchester): Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	MET

6. Widening the MLLR lateral dimensions

The CAA report states that the lateral dimensions of the MLLR are a contributing factor in increasing the mid air collision risk. However, Manchester does not share this opinion that 4nm is a particularly narrow or restrictive portion of airspace. It is appreciated that GA pilots might plan to route via certain VRPs within the vicinity of the MLLR which may lead to hot spots. However, the concept of aircraft converging on a VRP applies to any VRP, this is not unique to the MLLR and the widening of the MLLR is not a proven way to change this behaviour even if additional VRPs were added to create a broader lateral spread.

The MAN position is that routing through the middle of the MLLR is a pilot behavioural preference which is unlikely to be fixed by widening.

The CAA have stated that this proposed widening would align the MLLR with the Take Two initiative which exists to help GA pilots avoid infringements. However, Take Two is not mandatory and its application would not be expected to result in pilots into flying down the centre of the MLLR. Take Two may be appropriate elsewhere but it should not be used as a justification for changing the lateral dimensions of the MLLR given the potential impacts outlined below.

6.1. Widening to the east of the current boundary.

6.1.1. Current Operations

Making the MLLR wider to the east would reduce the current separation against MAN traffic and would enable VFR aircraft to be closer to the Manchester 05L/R ILS and departing 23L/R IFR traffic routes. By implication it would also move these aircraft closer to the replicated (Do Minimum) SID options created within the MAN ACP. This increases the risks of GA aircraft being affected by turbulent wake issues which MAN consider to be a backward step in ensuring safety; the MLLR was realigned in the late 1990's to the current position to mitigate this risk and ensure traffic using the MLLR was kept well below the 05R final approach track.

In addition, whilst widening the airspace would provide more lateral space, it would also mean that any infringing aircraft that is misrouting from the MLLR (or which has flown outside of the lateral boundary) would be closer to the MAN departures and arrivals. This would give less time for MAN ATC to react and find a safe solution to the infringement before a loss of separation or collision occurs.

In summary, the MAN opinion is that this proposal does not meet the safety objective of this change to maintain or increase safety.

6.1.2. Future Airspace

As stated above in the section of 'Future Airspace Considerations', there is concern that widening the MLLR will adversely impact the Manchester Airport ACP by moving GA traffic closer to the replicated (Do Minimum) SID options, altering the baseline traffic samples and changing the airspace options on which the Stage 2 approval by the CAA was based. This is because:

- The baseline traffic was assessed on the current MLLR dimensions. Any change to these dimensions will be subject to a HAZID which may require changes to how existing traffic is managed by ATC. Any procedural change below 7,000ft would alter the baseline overflight metrics used in the MAN Stage 2 ACP submission.

- These baseline overflight metrics were used within the DPE and IOA process as a quantitative comparator for the options to be carried forward. Therefore, if the baseline changes, this may change the options carried forward by MAN from the IOA process. This would alter the results of the ACP upon which approval was based, and may also require the conceptual

system design for the southern MTMA (agreed with NERL) to be reworked. This would have a cost and time impact to both MAN and NERL and could result in development simulations planned for Summer 2024 being cancelled.

In addition, the widening of the MLLR may reduce the options available to resolve design interactions between MAN and LPL as part of CAP1616 and CAF process. This work is currently underway and whilst the potential impact of widening to the east appears less problematic than widening to the west, it may still eliminate options to safely resolve design conflictions and may require either or both sponsors to seek alternative solutions that are either less fuel efficient, or change the number of people affected by noise. This would be contrary to the aims of CAP1991, would have an impact on the ACPs for both airports in terms of cost and time, and could lead to a sub-optimal outcome for local communities, without the benefit of their views taken into account following engagement.

Assessment

Current Operations: Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	Not met
Future Airspace (MAG Manchester): Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	Not met

6.2. Widening to the west of the current boundary.

6.2.1. Current Operations

Manchester ATC would have no operational objection to making the MLLR wider to the west. No additional safety risk has been identified on the basis of current operations.

6.2.2. Future Airspace

As stated above, there is concern that widening the MLLR will adversely impact the Manchester Airport ACP by altering the baseline traffic samples and changing the airspace options on which the Stage 2 approval by the CAA was based. The rational for this argument is identical to that contained in section 6.1.2 above.

In addition, the widening of the MLLR may reduce the options available to resolve design interactions between MAN and LPL as part of CAP1616 and CAF process. This work is currently underway and the potential impact of widening to the west appears more significant than a widening to the east. This may require either or both sponsors to seek alternative solutions that are either less fuel efficient, or change the number of people affected by noise. This would be contrary to the aims of CAP1991 and have an impact on the ACPs for both airports in terms of cost and time.

Assessment

Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	Met

Future Airspace (MAG Manchester): Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	Not met

7. Raising the upper vertical limit

Raising the upper ceiling of the MLLR was suggested in the CAA report as a possible remedy to some issues caused by the MLLR. However, the CAA report also highlighted a number of safety concerns with this proposal including:

- The proximity of the MLLR to LPL arrivals to runway 27 which must descend to 2000ft to intercept the ILS.
- The reduction of separation between MLLR traffic and LPL arrivals and the need for GA pilots to select the correct QNH to maintain the minimum 500ft safety buffer accurately.

The MAN response to the CAA Call for Evidence (submitted 6th January 2023) highlighted a number of areas within the MLLR where such a change may be possible whilst acknowledging the above concerns. On that basis, as part of the solution under current operations, MAN ATC would support the investigation of changes to the vertical limit to the north of the MLLR at an agreed boundary that is easily identified from the air. This is referred to in sections 3.2 below as the North section.

Suggested options for the boundary between the North and South sections are the M56, the Manchester Ship Canal or the M62. The Manchester Ship Canal may provide the extra height desired by GA pilots to pass over the majority of Warrington before needing to descend, but the M56 could be a more favourable option.

However, NATS Manchester would not support changing the controlling authority for the airspace immediately above the MLLR, currently Manchester Class D CTR. The Manchester QNH would therefore be required to be used by aircraft flying with the MLLR – aircraft flying immediately below or in the vicinity of a CTA would be expected to be on the same QNH as the CTA.

7.1. Raising the upper vertical limit in the South section

7.1.1. Current Operations

Manchester ATC would not support raising the upper limit in the southern section to 1500' because of the following safety concerns:

- An increase of the vertical limit would permit GA aircraft to be closer to Manchester's IFR inbound & outbound traffic routes, thus closer to potential wake turbulence as highlighted in section 6.1.1.
- MAN IFR inbounds flying a non-precision approach to runways 05L/R may be lower than the equivalent ILS traffic, as the vertical profile of a non-precision approach is less defined.

The MAN opinion is that raising airspace vertically to the south does not meet the objective of this change to maintain or increase safety.

7.1.2. Future Airspace

It is unlikely that raising the upper vertical limit of the MLLR in the southern section will adversely impact the baseline traffic samples used within the Stage 2 submission.

However, it may reduce the options available to resolve design interactions between MAN and LPL as part of CAP1616 and CAF process. This is caused by the proximity of the MLLR to LPL arrivals to runway 27 and the need to ensure safe separation as highlighted in the CAA report. The mitigation for raising the MLLR altitude may be for LPL arrivals to join the ILS for runway 27 at a higher altitude than today, but this would impact the climb profile required by MAN departures to the south west and west in order to be safely separated. It should be noted that because both the MAN and LPL routes

are intended to be systemised to align with the AMS, the separation standards defined in CAP1385 apply which require greater separation than the minimum radar separation required under current radar vectored operations.

In order to mitigate this safety risk, either or both sponsors may need to seek alternative solutions that are either less fuel efficient or change the number of people affected by noise. This would be contrary to the aims of CAP1991, and have an impact on the ACPs for both airports in terms of cost and time.

Assessment

Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	Not met
Future Airspace (MAG Manchester): Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	Not met

7.2. Raising the upper vertical limit in the North section

7.2.1. Current Operations

In the north section of the MLLR, the same safety issues are not present. Manchester ATC would support raising the northern section to 2000', effectively as an extension to the Manchester Barton (EGCB) local flying area.

The benefits of this proposal have been assessed as:

- This would allow east-west transits from LPL to Barton (and vice versa) to be less restricted.
- Raising the base of controlled airspace to 2000' at the Ship Canal would considerably improve the ability of aircraft to operate higher over the most congested areas of Warrington and improve the ability to alight clear.
- The duration of time spent within MLLR where it is constrained to 4nm width would be reduced.

7.2.2. Future Airspace

It is unlikely that raising the upper vertical limit of the MLLR in the northern section will adversely impact the baseline traffic samples used within the Stage 2 submission because of the distance of the MLLR from the existing SIDs which creates vertical separation.

It is also unlikely that this will reduce the options available to resolve design interactions between MAN and LPL as part of CAP1616 and CAF process, again because of the distance of the MLLR from the SIDs which creates vertical separation. However, a further assessment of this impact may be required depending on the outcome of this work.

Assessment

Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	Met

Future Airspace (MAG Manchester): Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	Met

8. Application of a speed restriction

Class G airspace requires pilots operating below 10,000ft amsl to not exceed 250kts IAS, although within the current MLLR ruleset, there is a speed restriction of 140kts maximum applied.

MAN support the application of a speed limit of 140 kts for the following reasons:

- Improves the 'see and be seen' policy of VFR flight.
- Reduces the risk of a mid-air collision as closing speeds will be capped.
- Lower speed permits ATCOs to maintain defensive controlling ability. Reaction times for both pilots and ATCOs would be maintained
- Limits unsuitable larger aircraft types (e.g. A400) with the additional benefit of eliminating the risk of wake turbulence for smaller aircraft.

It may also be useful to clarify what reporting action would be required if an ATSU observed an aircraft indicating a speed greater than 140kts as part of the revised procedures.

There is are predicted impacts to future airspace operations resulting from this proposal.

9. Other options

Two other options were discussed at the 4th October 2023 meeting, but it is understood that these have not been carried forward by CAA at this time. MAN would offer the following feedback on these options:

9.1.1. Continue with the class D ORS4 ('do nothing') option

Under this option the ORS4 would need to be extended or made permanent. This would preserve the current situation that both ATC and pilots have become familiar with. As highlighted in section 2 given the improvements made in safety performance, MAN consider it would be prudent to allow these arrangements to continue until the CAP1616 ACPs for both airports are implemented.

This would also allow the level 1 ACPs being progressed by both MAN and LPL to progress, with the options for the MLLR then capable of being reconsidered in light of the demands on controlled airspace required for the implementation of these ACPs.

This is MAN's preferred option and MAN would support this way forward as it would also limit the impacts on local communities who have not been afforded the opportunity to comment on the alternative CAA proposals for the MLLR.

For the reasons stated above, MAN considers that the CAA should reconsider the viability of this option.

Assessment

Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	MET
Future Airspace: Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	MET

9.1.2. Preserve the existing dimensions and convert the MLLR airspace to standard Class D airspace and ruleset.

If a proposal cannot be agreed, the CAA have stated that this may be a fallback option. However, Manchester ATC would not support this because:

- It would introduce an inappropriately high and potentially unsafe ATC workload because of the number of requests by GA pilots for ATC clearance.
- As a result, there would be an adverse impact on the core service provided to IFR flights and to the airlines operating to and from MAN airport. This would not be aligned to the aims of AMS which seeks a balance between the needs of commercial operations and GA.
- The duty of care that is required in Class D may be reduced due to ATCO capacity.
- There is a risk of an increased number of infringements by GA traffic.
- This would re create the issues that the current ORS4 is seeking to address.

Therefore, a straight conversion to Class D airspace does not meet the objective of this change to maintain or increase safety.

Assessment

Current Operations (NATS): Safety of all airspace users is considered as the paramount requirement, and any resultant change from the review of the MLLR must maintain or increase safety. Any adverse effect on operational considerations, should also be taken into account.	Not met
Future Airspace: Any resultant change from this review should not impact the design options approved within the MAN ACP Stage 2 submission or have the ability to influence the resolution of design interactions between MAN and LPL.	Not met

10. Conclusions

Short term solution for the MLLR.

For the reasons stated at Section 9, above, the preferred option for MAN would be to extend the current ORS4 exemption and existing ruleset for the MLLR.

Notwithstanding this preference and the associated request that the CAA revisit this option, of the options presented by the CAA on 4th October 2023 MAN's preferred option would be:

- conversion of the MLLR to Class G airspace; and
- application of a speed limit of 140kts, plus consideration given to a TMZ/RMZ in this section.

This is referred to as Option 4 by the CAA.

In addition, MAN's view is that consideration should be given to splitting the airspace into two sections at an agreed point, whether this be the M56, Ship Canal or M62. The north section could be raised to 2000', however the south section should remain at 1300' because of the potential to impact on both current and future operations.

However, MAN's preference remains that the current ORS4 exemption and existing ruleset for the MLLR be extended.

Long term solution for the MLLR.

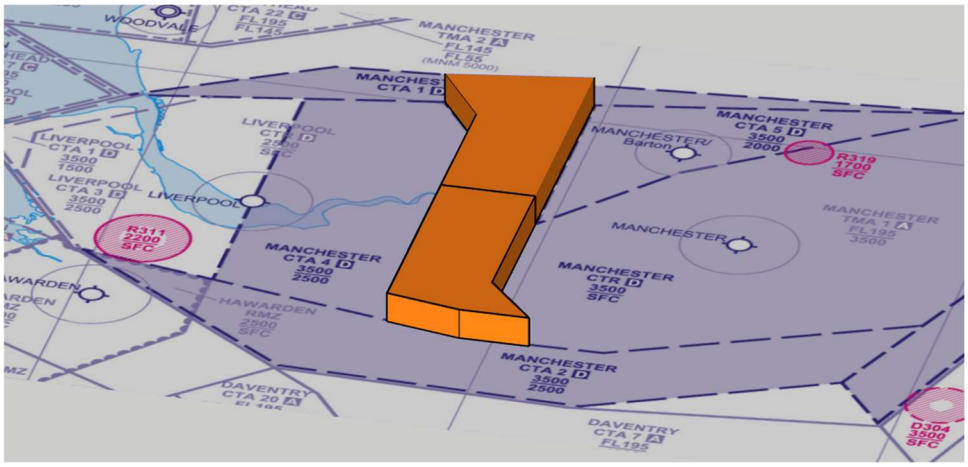
In relation to a long term solution for the MLLR, the MAN preference is that the creation of that solution:

- Should not form part of the current MAN ACP within FASI, for the reasons listed in this impact statement.
- Should be pursued under a separate ACP once the solution for the MAN FASI airspace is known. This will allow the future routes and controlled airspace dimensions to be defined, and then the MLLR integrated safely and effectively within it. This will also allow the views of local stakeholders and communities to understand and explore how the MLLR can be best integrated and for their views to be properly gathered and considered without compromising the wider FASI programme.

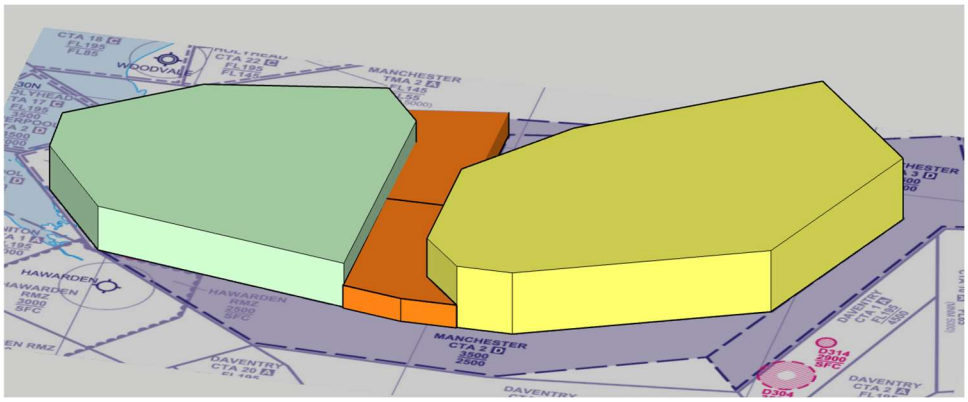
11. Appendix - Indicative Diagrams

Diagrams below are included for indicative purposes only – not to scale.

11.1. Current LLR 1300'

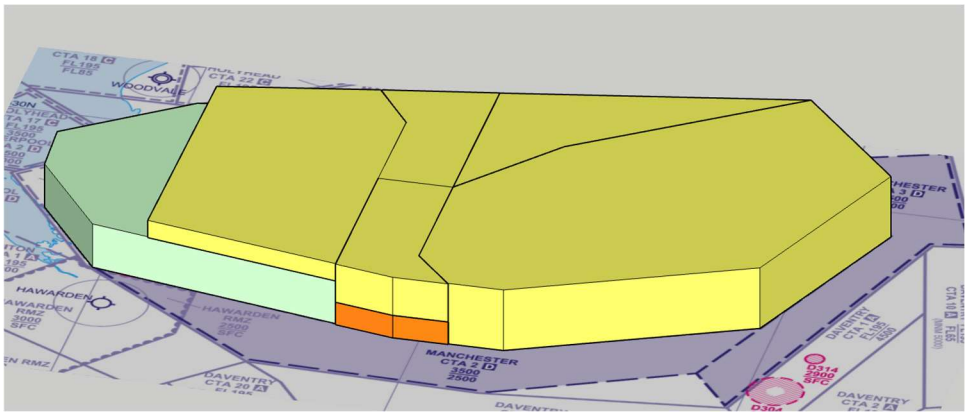


11.2. Current LLR 1300' EGCC CTR and EGGP CTR

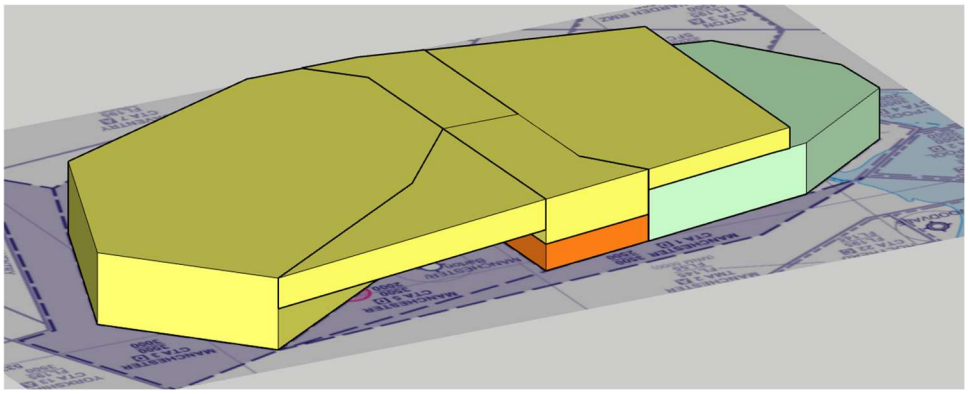


11.3. Current LLR with EGCC and EGGP CTR plus EGCC CTA

11.3.1. View from south

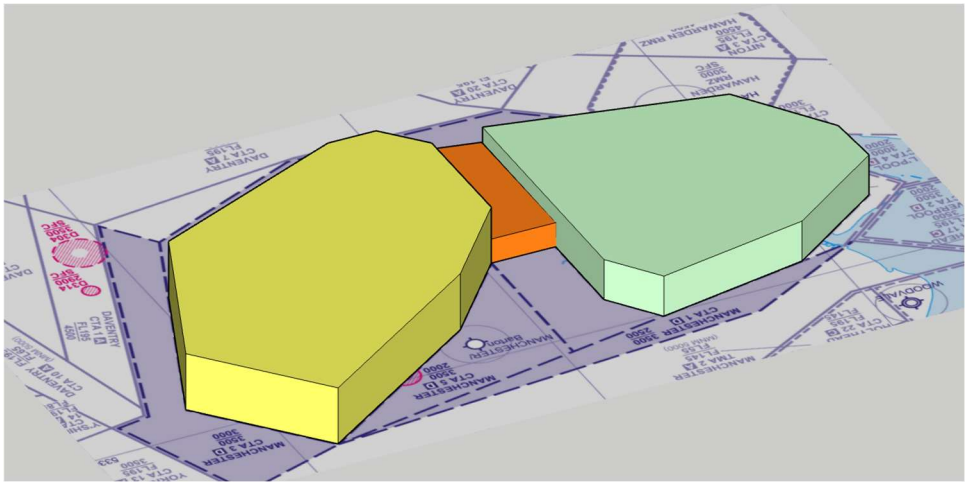


11.3.2. View from North – the EGCB LFA can be seen beneath the EGCC CTR



11.4. LLR raised to 1500' at the southern end EGCC CTR raised to 2000' base at the northern end.

11.4.1. View from the north - CC and GP CTRs indicated



11.4.2. CC CTR above CB LFA – the EGCB LFA is significantly extended up to the GP CTR boundary