

CAA Environmental Assessment

Title of airspace change proposal	Manchester Low Level Route (MLLR)
Change sponsor	UK Civil Aviation Authority
Project reference	CRA-1991-2023-002
Account Manager	[REDACTED]
Case study commencement date	02.10.2024
Case study report as at	04.10.2024
<p><i>Instructions</i></p> <p>In providing a response for each question, please ensure that the 'status' column is completed using the following options:</p> <ul style="list-style-type: none"> • YES • NO • PARTIALLY • N/A <p>To aid the SARG Lead it may be useful that each question is also highlighted accordingly to illustrate what is:</p> <p>resolved YES not resolved PARTIALLY not compliant NO</p>	

1. Introduction

The UK Civil Aviation Authority (the CAA) Airspace Classification team, the 'sponsor', has produced this airspace reclassification proposal as part of the CAP1991 process for reviewing the classification of airspace. This proposal seeks to reclassify airspace known as the Manchester Low Level Route (MLLR), Class D airspace that sits within the Manchester Airport control zone (CTR). The MLLR is located between both Manchester and Liverpool airports and provides a corridor of airspace for aircraft to route between both airports, running north and south. The airspace is approximately 4 NM wide and extends vertically from surface to 1,300ft AMSL (figure 1 below). A traffic analysis conducted using the CAA Airspace Analyser Tool (AAT) indicates that for the last three years (2021-2023) on average approximately 5,350 flights per year used the MLLR.

The MLLR is an anomaly to all other Class D airspace due to an exemption that currently permits entry to aircraft without verbal clearance from ATC, however this arrangement is due to expire on 31.05.2025 which will result in an increase to controller workload as any aircraft accessing the airspace would require verbal clearance after this date. This proposal seeks to re-classify the airspace from Class D to Class G, as well as increasing the ceiling altitude from 1300ft to 1500ft. The width of the airspace to the south of the M56 motorway will also be extended to the east by 0.65NM, creating a

total width of 4.65NM. A Restricted Area (RA) will be applied to the entire volume of airspace, and the requirements of the RA will include limits on airspeed, flight visibility, maximum certified take off mass (MCTOM) and QNH setting (Regional/Airfield pressure setting).



Figure 1 (left) – The current lateral extent of the MLLR.

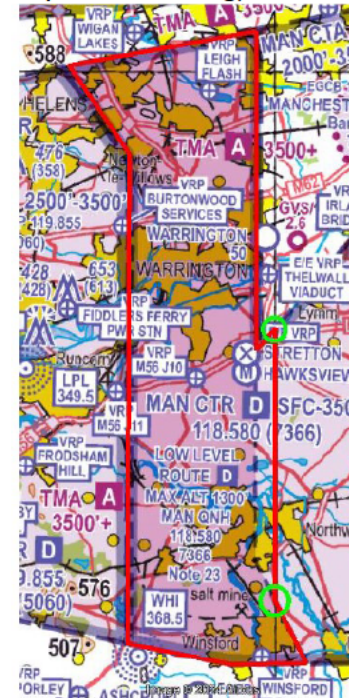


Figure 2 (right) – The proposed lateral extent of the MLLR. The two green circles highlight the eastwards expansion.

2. Nature of the Proposed Change		Status
2.1	Is it clear how the proposed change will operate, and therefore what the likely environmental impacts will be?	Yes
	This reclassification proposal seeks to reclassify the airspace known as the MLLR from Class D to Class G airspace. Class D airspace requires ATC clearance and mandates compliance with ATC instructions, whereas Class G airspace is unregulated and does not require ATC clearance. The MLLR will be extended by approximately 0.65NM in the south-east corner. Vertically, the ceiling height will be increased	

	<p>from 1300ft to 1500ft. A RA with specific requirements as mentioned in section 1 (above) will also be applied to the entire volume of the MLLR airspace.</p> <p>Guidance from the Secretary of State regarding airspace classification states that the CAA should consider the environmental consequences of a proposal for amending the classification of airspace but should specifically disapply the Air Navigation Guidance. However, because of requirements under Section 70 of the Transport Act 2000, the CAA have concluded that the principles we would use would be the same as the Air Navigation Guidance, but without any of the obligations on process that the guidance contains.</p> <p>The extension of the MLLR boundary to the east will enable General Aviation (GA) aircraft to newly overfly this area, however, the number of GA aircraft likely to do so is anticipated to be less than one per week. It should also be noted that the communities within the proposed boundary extension can already be overflowed by larger commercial air traffic. The widening of the MLLR airspace may also enable GA aircraft to fly in a more dispersed lateral pattern than is currently the case in the current day baseline scenario, however, quantifying the impact from this is not practicable. The proposed vertical change also increases the MLLR ceiling from 1300ft to 1500ft, allowing GA aircraft to fly at a slightly higher altitude than is the case in the baseline scenario. However, despite these changes to the airspace, this proposal is also not expected to lead to a change in the number of aircraft or types of aircraft using the MLLR. Further, significant environmental impacts, such as those resulting from changes to departure and arrival routes at aerodromes are not expected as commercial traffic routes will not be changed by this proposal. Due to the unpredictable nature of Class G airspace and GA activity, it is not possible to accurately quantify the environmental impacts resulting from GA traffic outside of controlled airspace and therefore the methodology used for the environmental assessment is qualitative in nature. All environmental impacts resulting from the reclassification of this airspace have been assessed as negligible.</p>
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3. Noise	
3.1	Summary of anticipated noise impacts from the final proposed airspace change.
	<p>The sponsor concludes that this proposal will not lead to a change in the number of people significantly affected by adverse impacts from aircraft noise. An analysis undertaken by the sponsor indicates that 5,635 aircraft tracks were recorded in 2023 with a similar number recorded in the two years prior. This is below the 30 movements per day threshold that would typically be required for the purposes of the Department for Transport's Transport Analysis Guidance (TAG) and LA_{eq} contours and therefore the current noise exposure is unlikely to exceed 51 dB LA_{eq,16hr} beneath the MLLR airspace. As the proposal is not expected to result in a change in either traffic volume, aircraft types or flight paths it can reasonably be concluded that the proposal will not result in an increase to noise levels above the Lowest Observed Adverse Effect Level (LOAEL).</p>

	<p>Number above (N65 daytime, N60 night-time) contours were also considered by the sponsor. However, due to the variable and unpredictable nature of GA traffic, it is highlighted that measuring noise from such traffic presents challenges. It is stated that the concentration of traffic closer to the centre of the MLLR is expected to remain the same as in the baseline scenario after reclassification, with minimal traffic expected to fly in the widened volume of airspace to the east. Based upon the anticipated traffic levels and distribution, the sponsor estimates that less than one aircraft movement per week may occur within the proposed extended airspace. Noise impacts exceeding 65dB LA_{max} (daytime) from aircraft in this extended airspace are therefore also anticipated to occur less than once per week.</p> <p>In terms of overflight impacts, it is assessed that the vertical extension of the MLLR will result in aircraft flying higher, albeit by a somewhat minimal difference of 200ft. This will increase the area overflown by single aircraft events due to a wider overflight swathe according to the CAA's overflight definition¹ however this is not deemed to be a significant difference. It is concluded that within the current extent of the MLLR, the number of people overflown is not expected to change when compared to a future baseline scenario without the proposed reclassification. The newly extended volume of airspace to the east of the MLLR will be overflown, identified by the sponsor as including Great Budworth, Upper Marston, areas of central Northwich, Leftwich, Davenham and Mere Heath. However, the frequency at which this is expected to occur is less than once per week. It should be noted that the eastern extension of the MLLR is being proposed to realise safety and airspace simplification benefits.</p>
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4. CO2 Emissions	
4.1	Summary of anticipated impact on CO ₂ emissions from the final proposed airspace change.
	The proposed reclassification is not anticipated to alter flight paths over the ground, aircraft types or the number of aircraft movements within the MLLR when compared to the baseline scenario. Based upon this, the reclassification of the MLLR airspace is not expected to lead to a change in CO ₂ emissions.

5. Local Air Quality	
5.1	Summary of anticipated impact on Local Air Quality from the final proposed airspace change.
	The sponsor has identified that there are several Air Quality Management Areas (AQMA) within the vicinity of the MLLR including the Warrington AQMA numbers 1 and 4. The reclassification of the MLLR is not expected to lead to a breach of legal air quality limits and target values or to lead to the worsening of an existing breach. The rationale for this conclusion is based upon the absence of changes to defined

¹ UK CAA, CAP1498: Definition of overflight
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	aircraft tracks over the ground, as well as this proposal not increasing air traffic volumes below 1,000ft. Due to the effects of mixing and dispersion, emissions from aircraft above 1,000ft are unlikely to have a significant impact upon local air quality.
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6. Tranquillity

6.1	Summary of anticipated impact on tranquillity from the final proposed airspace change.
	There are no National Parks, Areas of Outstanding Natural Beauty or nominated Quiet Areas overflown by traffic operating within the MLLR and therefore no impact upon tranquillity is expected.

7. Biodiversity

7.1	Summary of anticipated impact on biodiversity from the final proposed airspace change.
	<p>The European Sites overflown² by the MLLR include:</p> <ul style="list-style-type: none"> • West Midlands Mosses SAC • Oak Mere SAC • Manchester Mosses SAC • Midland Meres and Mosses Phase 2 Ramsar <p>The proposed reclassification is not anticipated to alter traffic patterns, aircraft types or the number of aircraft movements within the MLLR when compared to the baseline scenario. Based upon this, the reclassification of the MLLR airspace is not expected to result in any additional impacts to designated European Sites within the vicinity of this proposed change.</p>

8. Traffic Forecasts		Status
8.1	Have traffic forecasts been provided, are they reasonable, and have these been used to reflect the anticipated environmental impacts of the proposal?	No
	Traffic data from an analysis undertaken by the Airspace Reclassification team indicated that in 2023 there were 5,635 GA aircraft tracks recorded, and 119 military aircraft tracks within the MLLR. A future traffic forecast has not been provided by the sponsor. However, the extant MLLR airspace has a speed restriction of 140kts which limits the types of aircraft that can use the MLLR airspace. It is proposed that the speed restriction will remain should the re-classification be implemented. The airspace reclassification is also not expected to lead to an	

² Overflight of European Sites calculated using UK CAA, CAP1498: Definition of overflight.

	increase in aircraft traffic. It is therefore concluded that both the number and types of aircraft using the MLLR are not expected to change either with or without this proposal (i.e. no change compared to the current day baseline scenario).
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9. Recommendations/Conditions/Data Collection Requirements		Status
9.1	Are there any Recommendations which the change sponsor should try to address either before or after implementation (if approved)? If yes, please list them below.	No
	None.	
9.2	Are there any Condition(s) which the change sponsor must fulfil either before or after implementation (if approved)? If yes, please list them below.	No
	None.	
9.3	Are there any specific requirements in terms of the data to be collected by the change sponsor to enable the effectiveness of the change to be reviewed (if approved)? If yes, please list them below.	Yes
	The CAA's Airspace Classification team should use the CAA's Airspace Analyser Tool to gather data for the number and types of aircraft that transit the MLLR airspace in the first 12 months after implementation. Any extraordinary environmental complaints or concerns raised during this period should also be passed on to the CAA's Airspace Regulation team.	

10. Summary of Assessment of Environmental Impacts & Conclusions
<p>This proposal seeks to reclassify the Manchester Low Level Route (MLLR) airspace from Class D to Class G, as well as increasing the ceiling altitude from 1300ft to 1500ft. The width of the airspace to the south of the M56 motorway will also be extended to the east by 0.65NM, creating a total width of 4.65NM. A Restricted Area (RA) will also be applied to the entire volume of airspace, and the requirements of the RA will include limits on airspeed, flight visibility, maximum certified take off mass (MCTOM) and QNH setting. The restrictions proposed are consistent with the extant MLLR airspace restrictions.</p> <p>This reclassification is expected to have a negligible environmental impact, with minimal differences evident when compared with the baseline scenario. This proposal will not lead to a change in the volume of traffic nor the types of aircraft using the MLLR. It is expected that the reclassification will also not alter existing flight paths and the continuity of the 140kts speed restriction will further ensure that consistent aircraft types continue to operate in the airspace. The increased vertical ceiling of 1500ft means that General Aviation (GA) aircraft transiting the MLLR can do so at a slightly higher altitude than is currently the case, however, this difference is considered to be minimal. The lateral extension of the MLLR to the east will result in areas being</p>

newly overflowed by GA traffic, however, the frequency at which this is expected to occur is minimal at less than once per week. Based upon this, the CAA Airspace Regulation team conclude that any environmental impacts resulting from the reclassification of the MLLR are negligible.

Environmental assessment sign-off	Name	Signature	Date
Environmental assessment completed by Airspace Regulator (Environment)	[Redacted]	[Redacted]	4 th Oct 2024
Environmental assessment reviewed by Principal Airspace Regulator (Environment)	[Redacted]	[Redacted]	30 th Oct 2024
Environmental assessment conclusions approved by Manager Airspace Regulation	[Redacted]	[Redacted]	17 th Nov 2024