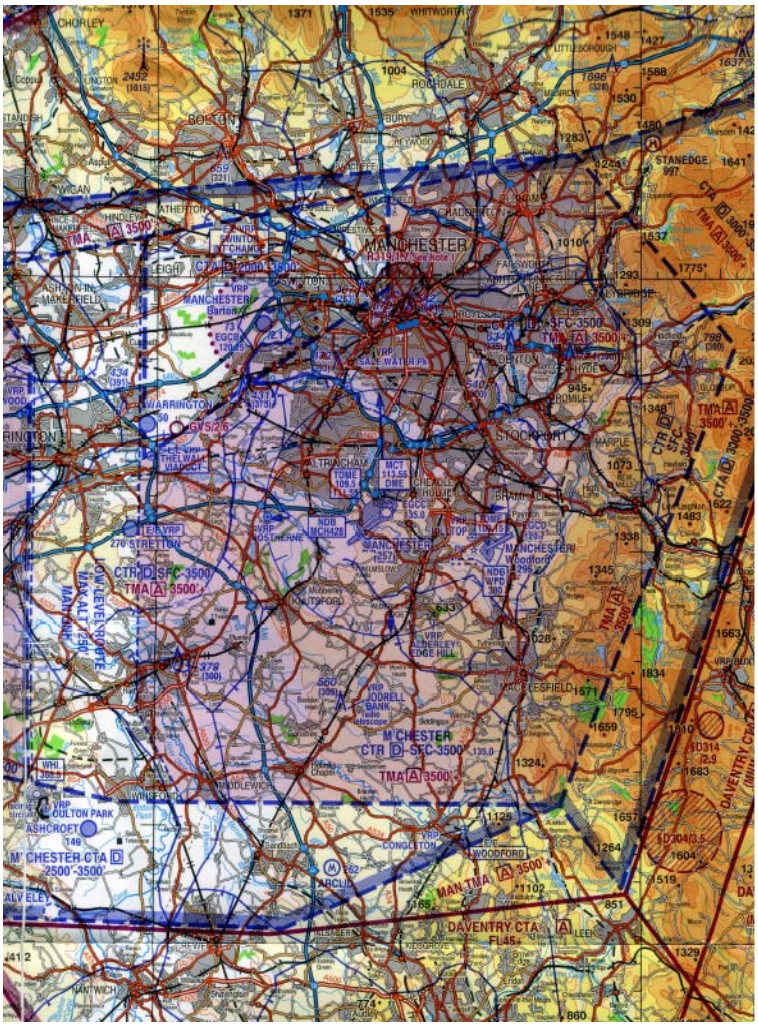

MANCHESTER CTR AIRSPACE CHANGE PROPOSAL

CONSULTATION FEEDBACK
ISSUE 1 - JUNE 2011

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1 Introduction

1.1 The Manchester Control Zone (CTR) stakeholder consultation ran for 13 weeks commencing on 31st October 2008 and closed on 30th January 2009. This provided an extra week in view of the Christmas Public Holidays.

1.2 Based on the requirements set out in the Civil Aviation Authority's (CAA's) CAP725 - Guidance on the Application of the Airspace Change Process [1], a total of 111 representative groups were identified as stakeholders. Each of these representative groups were formally notified of the start of the consultation by either e-mail or letter, commencing 31st October 2008. An ACP briefing presented by NATS ATCOs was held at Manchester City Airport Barton on 16th December 2008, detailing the proposed airspace changes and inviting feedback from general aviation (GA) representatives.

1.3 A total of 42 responses to the consultation were received from stakeholders. Analysis of these responses and issues raised are addressed in this feedback report. Two responses were received late on 1st & 11th February 2009, but these have been included in the Consultation Record Sheet and in this document. The complete consultation record (including copies of the responses received) will be included as part of the formal Airspace Change Proposal document to be submitted to the CAA.

2 Response statistics for aviation stakeholders

2.1 The initial notification of the start of the consultation was sent to groups representing aviation users in the local and surrounding CTR airspace area, including those on the National Air Traffic Management Advisory Committee, Local Authorities and County Councils.

	Count	approx %
Total notifications sent	**91**	
Responses with objections:	0	0%
Responses in favour with comments:	34	37%
Responses in favour with no comment:	7	8%
Delivery but no response:	50	55%

Table 1 Summary of numbers of responses from aviation stakeholders.

2.2 From Table 1 it can be seen that 45% of the groups representing aviation users responded. None had objections to the proposal. Woodford objected to part of the proposal but overall they were in favour, therefore their response has been included in the 'Response in favour with comments'. Woodford's future is currently uncertain, however the Change Proposal takes into account that operations may continue for some time to come.

[1] CAP 725, CAA Guidance on the Application of the Airspace Change Process, March 2007, CAA Directorate of Airspace Policy.

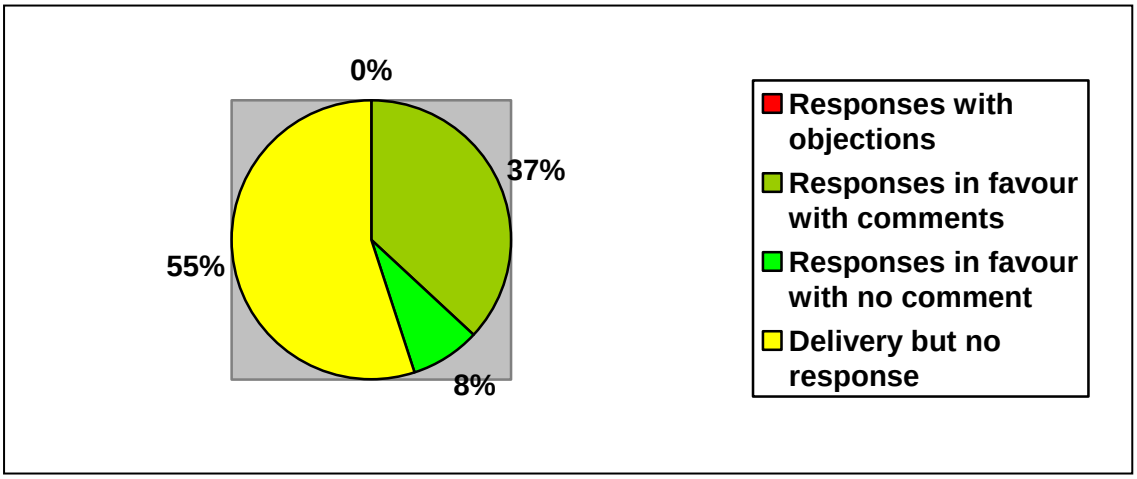


Figure 1 Aviation stakeholders response pie chart.

3 Response statistics for non-aviation stakeholders.

3.1 Notification of the start of the consultation was sent to 20 groups with an environmental remit, including County Councils and environmental interest groups.

	Count	approx %
Total notifications sent	**20**	
Responses with objections:	0	0%
Responses in favour with comments:	1	5%
Responses in favour with no comment:	0	0%
Delivery but no response:	19	95%

Table 2 Summary of numbers of responses from non-aviation stakeholders.

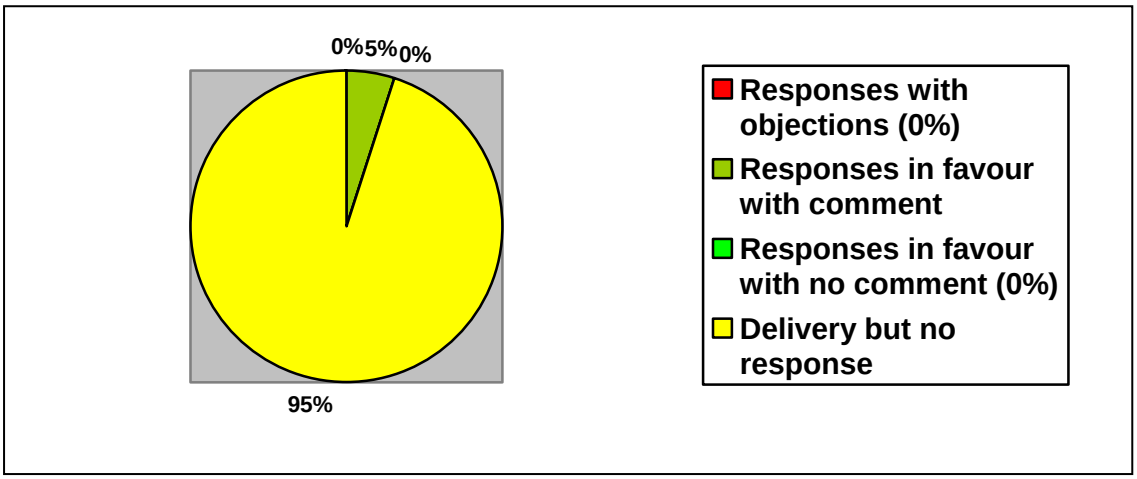


Figure 2 Non-aviation stakeholders response pie chart.

4 Key Issues raised by consultation.

4.1 There were two key issues raised by consultation, which included detailed responses from two aviation association representative groups. These two groups were supportive of the proposal on operational grounds, since they stated that the safety of VFR aircraft would be improved, whilst the risk of airspace incursions would reduce. There was also support for the proposal on environmental grounds since the proposed changes will allow the density of VFR traffic to be reduced. However, they requested that one or two points be considered and addressed during the formal submission of the proposal. These issues centred on returning more of the Low Level Route (LLR) and CTR to Class G airspace.

5 Comments on Key Issues.

5.1 **Low Level Route – Upper Limit.** The first consideration was to leave the LLR unchanged. It has been in place for many years and there was merit in the view that 'if it isn't broken, don't fix it'. However, the ACP proposed to change the LLR airspace to Class G which would necessitate the introduction of a new CTA above the LLR. During discussions with the CAA, it was made clear that having CTA stubs beginning at 50 feet intervals was not permitted and that any new CTA must be based on a round one hundred feet figure. Consideration was therefore given to raising the maximum altitude of the LLR to 1300 feet or higher.

5.2 Serious consideration was given to raising the upper limit of the LLR to an altitude of 1500 feet, but real and justifiable concerns about the negative impact upon Liverpool vectoring procedures meant this option was discarded. During the Proposal Development stage, discussions were held with Liverpool ATC, who were strongly against raising the upper limit of the LLR above 1250 feet amsl.

5.3 The close proximity of Liverpool and Manchester Airports, together with the LLR has created an extremely complex and congested section of airspace, and there are many specific ATC operating procedures that have to be followed to ensure that co-ordination between Manchester and Liverpool traffic is minimised. To this end, Liverpool have over the years developed radar vectoring techniques that (amongst other things) allow them to facilitate visual approaches from the downwind right position for runway 27. This allows them to have a significantly greater throughput of traffic than would be possible were all approaches flown as per the published procedure. This practice is favoured by the airlines due to the environmental and economic benefits of reduced track mileage.

5.4 The ability to descend inbounds to 1800 feet to maintain vertical separation from the LLR is an essential part of the visual approach technique and allows more than one aircraft to be positioned for the approach at any one time. To remove this ability risks reducing the number of aircraft being sequenced. The extra track mileage (if only amounting up to 10 miles for each aircraft) would consequently result in more airborne holding, with negative impacts both in terms of service delivery and environmental considerations. The notion of raising the LLR to 1500 feet amsl has thus been rejected.

5.5 To raise the upper limit of the LLR, north of M6 J21/M62, to 2000ft would radically affect current Liverpool vectoring procedures, creating safety concerns of having IFR inbounds descending over a busy VFR/SVFR route with non SSR squawking contacts – with further safety concerns regarding the vectoring of Liverpool traffic closer to Manchester SIDs and producing further track mileage for Liverpool IFR inbounds. With the upper limit of the LLR at 2000 feet, the interactions between Liverpool and Manchester procedures (not least, Manchester departures and Liverpool arrivals) needs to be considered in greater detail.

5.6 Raising the upper level of the LLR, south of the A556, to 2000 feet would seriously affect IFR inbounds being vectored to the 05R/L ILS at Manchester, causing a late descent to establish on the glidepath, leading to potentially rushed approaches for the crews.

5.7 Stepped upper limits to the LLR have also been considered, but that would not only unduly complicate the proposed changes and delay its introduction, but would also create safety concerns that traffic using the LLR would fail to descend in the vicinity of Stretton to the lower limit of the LLR.

5.8 The final option considered with regard to the LLR is to raise it to 1300 feet amsl. This satisfies the CAA DAP requirement for the CTA bases to begin at a 'round one hundred feet' interval and provides the required 500 feet or more procedural containment obligation for aircraft operating into/out of Liverpool.

5.9 **Low Level Route – Lateral Limit.** Extending the lateral limits of the LLR was another of the main issues raised during the Consultation Stage. This issue has been given much consideration, but the only change proposed will be to returning a portion of airspace to the east of the LLR (north east of Stretton VRP) to Class G airspace. This increase in Class G airspace has been well received, particularly amongst pilots using Manchester Barton. One response questioned the reason behind the 'kink' in the revised boundary between Stretton VRP and Oldham. This is due to the protection required for the POL & DESIG outbound SID climb profiles, which are based on multi-engine aircraft's engine out performance.

5.10 Manchester ATC has experienced a number of CTR infringements, particularly to the east of the LLR. New VRPs were introduced which have reduced the number of infringements. However, motorways (particularly the M6) in the Manchester area have often been followed during the summer months by non-locally based pilots, bringing 'infringers' into close proximity (just 3¾ miles from the end of runway 05R in relation to the M6) to Manchester's IFR traffic. This is at a time when Manchester ATC are at their busiest. Naturally, these infringements can create a high increase of workload for the Manchester Final Approach Director when on Easterlies, with aircraft being broken off the approach, resulting in substantial delays to traffic. When on westerly operations, 'infringers' can cause delays to departures. This situation requires a high level of ATC coordination between Manchester Approach & Tower controllers, and possibly also with Prestwick Centre and Liverpool ATC. For these reasons, any further extension of the eastern lateral limit of the LLR has not been included in the proposal.

5.11 One detailed response could see no reason why the LLR should not be expanded to the south-west and why it should be reserved as part of the Liverpool CTR. This portion of airspace, inside the Liverpool CTR to the south west of the LLR is outside the remit of this airspace change proposal and therefore will not be considered at this time.

5.12 **CTR – Lateral Limit.** Responses welcomed the additional fillet to the north-east of the CTR, which they view as a lateral improvement. Further suggestions though requested that the south east CTR boundary could be taken back on a line towards Glossop. This could bring unknown north east bound traffic (following the edge of higher terrain to the east of the Manchester basin) on a converging track with the 23R final approach. The presence of low cloud which often occurs around the high ground to the east could result in traffic taking a more westerly track, flying even closer to the final approach at Manchester. Northbound traffic remaining clear of cloud, tracking to the west of this high ground could encounter further low cloud over the high ground in their twelve o' clock, north of Glossop. This could lead to a scenario where the traffic alters course onto a southerly track, again close to the extended final approach track.

5.13 Woodford Airport is still an active airfield (though it's future is currently unknown), with a requirement to protect IFR arrivals and departures. However, the decision not to convert the airspace in the Macclesfield area to Class G has been based solely on Manchester Airport's requirements.

The Manchester Control Zone Airspace Change Proposal

6 The Basics

6.1 North Western CTR boundary realignment – shown as A on Map One

1. To realign the North Western boundary of the CTR thereby creating a new "fillet" of Class G airspace from a point where the M56 Motorway crosses the existing Eastern LLR boundary at 53˚20' 56" N, 002˚31' 03" W (abeam Stretton VRP), to a point 53˚26' 38" N, 002˚22' 58" W (near Flixton Railway Station).
2. The fillet would extend to 2000 feet amsl. The airspace above 2000 feet up to 3500 feet amsl would be absorbed into the existing Class D CTA.

6.2 Northern CTR boundary realignment – shown as B on Map One

1. To extend the Northern boundary of the Manchester CTR from 53˚26' 38" N, 002˚22' 58" W (Flixton Railway Station) Northeastwards to the existing Northernmost point of the CTR at 53˚34' 30" N, 002˚04' 00" W (near Shaw and Delph).
2. A portion of the current Class D airspace in the North East quadrant of the CTR would be reclassified to Class G extending to 2000 feet amsl.
3. The airspace above 2000 feet up to 3500 feet amsl would be absorbed into the existing Class D CTA.

6.3 Southern CTR boundary realignment – shown as C on Map One

1. To realign the Southern boundary of the Manchester CTR Northeastwards from 53˚ 10' 55" N, 002˚ 22' 07" W (Holmes Chapel VRP), to pass South of Macclesfield, to intersect the existing eastern CTR boundary at 53˚ 16' 16" N, 002˚ 01' 31" W (near Lamaload Reservoir VRP).
2. Class G airspace up to 2500 feet amsl would replace the existing Class D airspace.
3. The airspace above 2500 feet amsl up to 3500 feet amsl would absorbed into the existing Class D CTA.

6.4 Low Level Route

1. To raise the upper limit of the LLR to 1300 feet in accordance with CAA DAP requirements.

7 The Options

7.1 In addition to the proposals outlined the following options were also considered.

7.2 "Do nothing".

The existing CTR boundary works well from an ATC viewpoint and provides more than adequate protection of Manchester air traffic. The boundary alignment works less well from an airspace user's viewpoint. The aim of this ACP is to *improve* on the existing arrangement so that in the future, the extent of the CTR more accurately reflects need. The "do nothing" option is, therefore, deemed inappropriate.

7.3 Further raise the base of the CTAs.

It was considered to revise the CTA to the North of the CTR to have its base at 2500 feet amsl. This was rejected as it infringed the procedure containment for the POL and DESIG Standard Instrument Departures (SIDs) from Runways 23R/L.

8 Operational Impacts

8.1 With regard to the changes proposed in the North/ North East and Southern sections of the CTR, the proposed Class G airspace will give airspace users greater choice of route selection without the need to contact ATC.

8.2 A limited revision to the Woodford Entry/Exit Lane will be made to reflect the changes to the CTR boundary.

8.3 It is important to stress that these proposals do not seek to increase or decrease the amount or type of traffic using the subject airspace. Aircraft have always been allowed to operate in this airspace, subject to an ATC clearance.

8.4 By reclassifying the airspace from Class D to Class G (therefore reducing the volume of the CTR), the constraint of VFR traffic having to make R/T calls to enter the CTR (on an already busy ATC frequency) will be reduced. The consequent reduction of R/T loading will be beneficial to pilots and ATC alike.

9 Environmental Impacts

9.1 It is vital to understand that ***no changes*** will be made to published IFR procedures to and from Manchester and Woodford.

9.2 Noise Preferential Routings will remain the same.

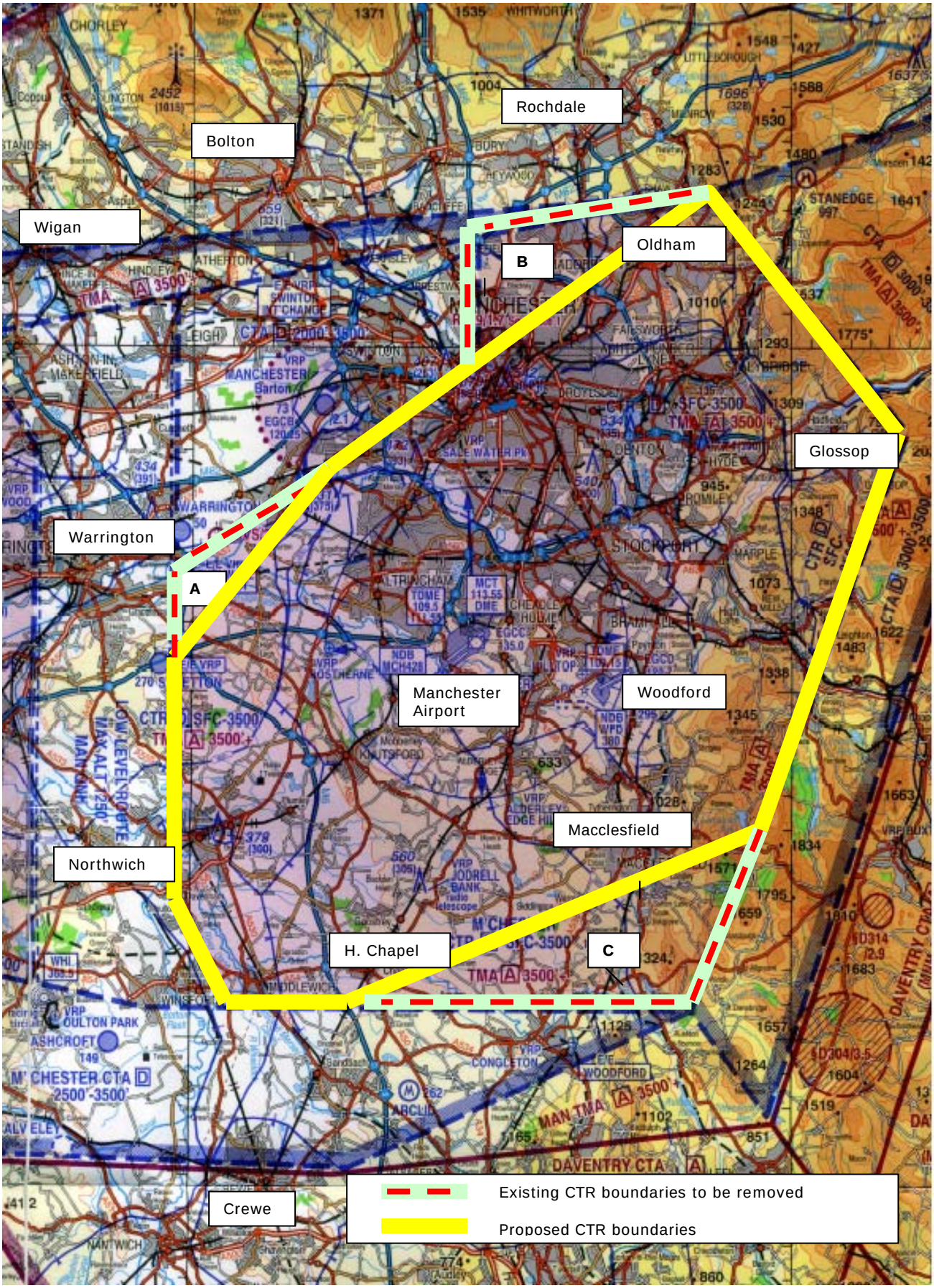
9.3 Vectoring techniques will remain unaltered and altitudes assigned to commercial traffic into Manchester will not change as a result of these proposals.

9.4 The manner in which traffic into and out of Manchester is controlled will remain unaltered.

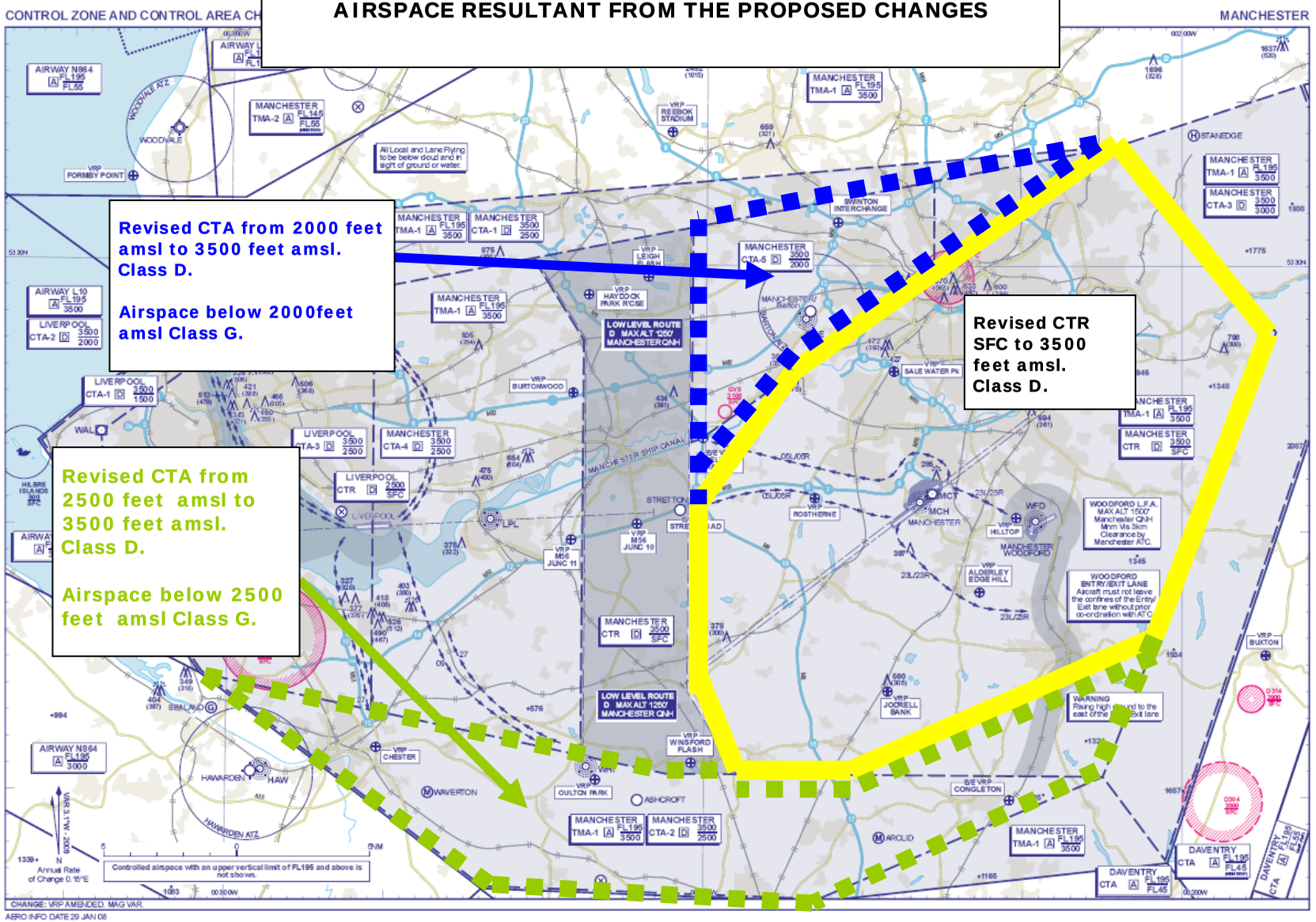
9.5 It is expected that there may be some environmental benefits to the changes, in that the airspace up to 2000 feet amsl between Barton and Stretton will allow aircraft to stay higher for longer after departing Barton for the LLR. Conversely aircraft routing from the LLR in the direction of Barton will be permitted to climb earlier than is presently the case.

9.6 It is likely that there will be a redistribution of traffic operating in the local area, although exact patterns are difficult to predict. It is possible that noise from aircraft may increase in some parts of the revised airspace and decrease in others, but it is not possible to predict where these changes may occur.

MAP ONE
CTR BOUNDARIES BEFORE AND AFTER PROPOSED CHANGE.



MAP TWO
AIRSPACE RESULTANT FROM THE PROPOSED CHANGES



10 Next Step

10.1 The original consultation generated plenty of support for the return of parts of the Manchester CTR to Class G airspace. The main issues concentrated on the request to consider the release of more airspace surrounding the LLR and to the east of the CTR.

10.2 Due to the successful transfer of the Manchester Area Control function to Prestwick Centre, the Airspace Change Proposal is now back on track. Having reviewed the issues that arose from the original consultation, subtle changes have been made and included for further feedback. The next step is for NATS to submit a Formal Proposal Submission outlining the Airspace Change Proposal to the CAA. The CAA will undertake a detailed evaluation of the proposal and can be expected to announce a regulatory decision by the end of the autumn 2011

10.3 Implementation of the proposal (if approved) is planned for March 2012 (AIRAC 3/2012).