

Executive Summary

This document explains changes proposed by NATS to airspace between the northern extremity of the London TMA, and the southern extremity of the Manchester TMA. It contains information for the aviation community to enable these stakeholders to give informed feedback. This consultation is specifically with the aviation community and this document therefore contains aviation abbreviations and technical terms.

This proposal seeks to harmonise the Transition Altitude (TA) in the area proposed to 6000ft, in order to bring it into line with most of UK Controlled Airspace (CAS) with the exception of the Manchester TMA. It also proposes, in order to enable the TA harmonisation, to redefine the boundary of the Daventry (DTY) Control Area (CTA) to include the airways to the East and West of the current CTA, and to include the newly defined DTY CTA in AIP section ENR 1-7-2 para 4.1: airspace beneath which all aircraft must adopt the Transition Altitude of the controlled airspace above. This proposal would not change the patterns of flights; hence the UK CAA has agreed that consultation with environmental groups is not required.

If accepted, this airspace change will enhance safety, by simplifying airspace structures and boundaries, and ensuring that all aircraft use the same TA within and beneath the 'spine' of CAS running through the Midlands area between the London and Manchester TMAs. In particular this proposal:

- Progresses CAA policy to harmonise TA inside UK CAS.
- Removes the discrepancy between expected level and cleared level for Birmingham SIDs (i.e. 6000ft/ FL60), reducing the complexity of the airspace and therefore the potential for level bust.
- Harmonises TA across airspace boundaries with the London TMA.
- Reduces uncertainty as to which TA should be used by traffic outside CAS transiting beneath the DTY CTA
- Reduces possibility of (vertical) infringement into CAS in the Midlands region, as all traffic will use the same TA.
- Simplifies CAS boundaries.
- Simplifies airspace classification and operating practices in a complex area.
- Reduces complexity and therefore infringement risk, due to all operators using the same pressure datum in the vicinity of CAS.

This consultation follows a process agreed by the Civil Aviation Authority (CAA) which gives consideration to the nature of this proposed airspace change. In accordance with the guidance (Ref.1), NATS is consulting with aviation stakeholders including representatives of General Aviation.

The period of consultation commences on May 28th 2010 and closes on August 20th 2010 (12 weeks). Subject to the outcome of this consultation, NATS will submit an airspace change proposal to the CAA. If the proposal is approved by the CAA, NATS will implement the airspace change at an appropriate opportunity.

Please send any comments on the airspace change proposal via:

Email to: airspaceconsultation@nats.co.uk

Or by post to: Midlands Transition Altitude Harmonisation Consultation Co-ordinator
NATS, Prestwick Centre, Rm G111
Fresson Avenue,
Prestwick,
Ayrshire
KA9 2TR

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1. Introduction

- 1.1 Air travel is integral to the success of the UK economy and has become an important part of modern life; for business or pleasure, more of us are flying more frequently than ever before. More flights mean busier skies, and how we use and manage our airspace is a matter of great responsibility. The passage of aircraft above us is managed by air traffic control (See **Appendix A** for background information on UK airspace). Air Traffic Control (ATC) ensures safety and keeps aircraft flowing efficiently. The more efficient the system can be made, the more we can reduce the impact of aviation on the environment, and make advances in safety. For these reasons, NATS undertakes constant reviews of UK airspace and, when necessary, recommends changes to how it should be managed.

To find out more go to www.nats.co.uk

- 1.2 This consultation document relates to a proposal to harmonise the Transition Altitude (TA) in the Midlands region to 6000ft bringing it into line with most of UK Controlled Airspace (CAS) with the exception of the Manchester TMA¹. In order to enable the TA harmonisation, NATS are also proposing to redefine the boundary of the Daventry (DTY) CTA to include the airways to the East and West of the current CTA. This will include the newly defined DTY CTA in AIP section ENR 1-7-2 para 4.1, beneath which all aircraft must adopt the TA of the controlled airspace above. As the sponsor of this change, NATS is seeking feedback on the proposal before submitting it to the UK airspace regulator, the Civil Aviation Authority (CAA), for consideration and decision. The feedback received during this consultation will influence the final proposal submitted to the CAA. The CAA will decide on the merits of the proposal, and whether or not the airspace change can be introduced.
- 1.3 This proposed change is not associated with the Terminal Control North (TCN) airspace development currently under review by NATS following consultation in 2008.

2. The purpose of consultation

- 2.1 The purpose of the consultation is to allow the aviation community to consider the proposal and provide NATS with feedback.
- 2.2 The details of this consultation have been agreed in principle with the CAA, as meeting the requirements of their airspace change process (Ref 1) and follow Government guidelines for consultation (Ref 2). This includes the rationale for who should be involved in the consultation. **Appendix B** lists the stakeholders that have been identified and who have been sent a copy of this document. This does not preclude other interested parties from providing feedback, and this document is freely available on the internet at www.nats.co.uk.
- 2.3 Any matters raised during the consultation period that have not been adequately considered during the development of the proposed design may require NATS to make changes to the proposal. Any such changes may require further consultation.

¹ Which will remain at 5000ft until the next major airspace change in this region.

3. Scope of consultation

3.1 Environmental stakeholders

The proposal is limited to a change to the TA in the Midlands region, and a redefinition of existing controlled airspace. This proposal would not change the patterns of flights (IFR, VFR or SVFR) using Birmingham or East Midlands Airports, or aircraft operating within Class 'G' airspace under the airspace in question (see section 9). Hence the CAA has agreed that consultation with environmental stakeholders is not required.

3.2 Aviation stakeholders

Groups representing airspace users such as the military, general aviation and commercial air transport are included in this consultation. A full list of stakeholders included in the consultation is given in **Appendix B**.

4. What Happens Next?

4.1 The period of consultation commences on May 28th 2010 and closes on August 20th 2010, which is a period of 12 weeks.

4.2 When responding, consultees must specify the grounds for supporting or objecting to the proposal. Feedback in favour of, or opposing, the proposal without supporting reasons will be provided to the CAA but NATS will not be in a position to consider the merits of that unsupported feedback. Feedback received during the consultation will be analysed by NATS and summarised in a post-consultation report which will be made available via the NATS website and notified to consultees..

4.3 This report will also update stakeholders on subsequent phases of the development process such as any further consultation that may be required, the submission of a formal proposal to the UK CAA and its consideration of that proposal.

4.4 Details of the consultation exercise will form part of the airspace change proposal that NATS will submit to the CAA for consideration and decision. Copies of all responses will be provided to the CAA, including any personal information contained in them, *except where the respondent requests otherwise*. If the CAA accepts the proposal, NATS will implement the airspace change at an appropriate opportunity.

4.5 The implementation date may be affected by the following:

- The length of time taken by the CAA in reaching its decision;
- The need for any revision of the airspace change proposal identified by the consultation process and any further period of consultation required for such revisions;
- Operational constraints.

Responses should be sent via

Email to: airspaceconsultation@nats.co.uk

Or by post to: Midlands Transition Altitude Harmonisation Consultation Co-ordinator
NATS,
Prestwick Centre
Rm G111
Fresson Avenue,
Prestwick,
Ayrshire
KA9 2TR

5. Development Objectives

5.1 CAA Policy

This proposal progresses CAA policy to harmonise TA within UK CAS.

5.2 Safety

- In addition to enacting CAA policy, NATS' primary objective for this change is enhanced safety. Harmonisation of TA brings safety benefit through simplification of airspace and procedures both within and beneath CAS.
- The Midlands region, including airspace from the northern boundary of the London TMA to the southern boundary of the Manchester TMA, is a complex area including two different TAs and many differing airspace bases. It includes two major airports, and many smaller airfields.
- The Standard Instrument Departures (SIDs) from both Birmingham and East Midlands airports climb through the current TA to Flight Level FL60 (with the exception of the East Midlands DTY departure which terminates at FL70). This is at odds with SID terminating levels in the rest of the UK, most of which climb to an altitude. Many, for example in the London or Scottish TMAs, terminate at 6000ft, and this anomaly can cause added complexity for aircraft operators. This complexity can lead to level busts, which Birmingham and East Midlands radar controllers generally pick up before they occur.
- Climbing through the TA can cause difficulties for aircraft operators, who must therefore set their standby altimeter to standard pressure, and then adhere to an 'at or above' point on the SID at an altitude in order to remain inside controlled airspace. The Flight Level end point of the SID can be very close to that 'at or above' altitude on days when the pressure is below standard (1013.2mb). This combines to produce a confusing area of airspace and procedures which would benefit from simplification and the use of altitudes only for departures where possible.
- The DTY CTA is generally aligned North/South and joins the busy London and Manchester TMAs, with the Birmingham and East Midlands CTAs embedded within it and protruding to the West (Birmingham) and East (East Midlands). The Daventry CTA is bordered by Airways A34 and N601. The DTY CTA is not included in the list of CTAs beneath which aircraft must adhere to the same TA as the airspace above (UK AIP, ENR 1-7-2 para 4.1). Furthermore, the airspace beneath the DTY CTA (unlike the majority of CTAs in UK airspace) is included within the Altimeter Setting Region (ASR) system, and not subject to the use of the QNH of local airfields. This creates a confused picture. The relevant paragraphs of the AIP are as follows:

AIP ENR 1-7-2 para 3.1

The Transition Altitude within the UK is 3000 ft except in, or beneath that Airspace specified at paragraph 4.1.

AIP ENR 1-7-2 para 3.9

Airspace within all Control Zones (CTRs), and within and below all Terminal Control Areas (TMAs), Control Areas (CTAs) except Airways and the Daventry and Worthing Control Areas, during their notified hours of operation, do not form part of the ASR Regional Pressure Setting system.

AIP ENR 1-7-2 para 3.10

When flying in Airspace below TMAs and CTAs detailed above, pilots should use the QNH of an adjacent aerodrome when flying below the Transition Altitude. It may be assumed that for aerodromes located beneath such Areas, the differences in the QNH values are insignificant. When flying beneath Airways whose base levels are expressed as Altitudes pilots are recommended to use the QNH of an adjacent aerodrome in order to avoid penetrating the base of Controlled Airspace.

AIP ENR 1-7-2 para 4.1

4.1 The following Transition Altitudes apply to flights within or beneath the following Airspace:

| | | | |
|-----------------------------|-----------|------------------------|-----------|
| Aberdeen CTR/CTA | 6000 ft | Glasgow CTR/CTA | 6000 ft |
| Belfast CTR/TMA | 6000 ft | Leeds Bradford CTR/CTA | 5000 ft † |
| Birmingham CTR/CTA | 4000 ft | London TMA | 6000 ft |
| Bristol CTR/CTA | 6000 ft | Manchester TMA | 5000 ft |
| Cardiff CTR/CTA | 6000 ft | Newcastle CTR/CTA | 6000 ft |
| Doncaster Sheffield CTR/CTA | 5000 ft | Scottish TMA | 6000 ft |
| Durham Tees Valley CTR/CTA | 6000 ft † | Solent CTA | 6000 ft † |
| East Midlands CTR/CTA | 4000 ft | Sumburgh CTR/CTA | 6000 ft † |
| Edinburgh CTR/CTA | 6000 ft | | |

NATS proposes that the redefined DTY CTA is removed from para 3.9, and included in para 4.1 of the UK AIP entry shown above.

5.3 Delay

This change does not seek to improve capacity or reduce delay, and is not expected to have any impact, either positive or negative, on these.

5.4 Environment

The proposed change does not seek to change the positioning or vertical profiles of flights in the region and so does not have objectives relating to environmental performance.

5.5 Other Airspace Users

Any airspace users outside CAS will be required to adjust their practices to accommodate the revised TA beneath the proposed airspace structures. However, this proposal will simplify the airspace which will in turn simplify flight beneath this complex area, and reduce the risk of infringement. NATS understands that some airspace users may need to make changes to their operation in order to accommodate these changes.

6. The Current Situation

- 6.1 At present (See **Figure 1**), within the DTY CTA, and Birmingham and East Midlands CTAs, the TA is 4000ft. These areas make up an isolated area of CAS bounded by a Transition Altitude of 5000ft to the North in the Manchester TMA, and 6000ft to the South in the London TMA. Around and beneath the DTY CTA, outside CAS, the TA is 3000ft, whilst beneath the Birmingham and East Midlands CTAs the TA takes on that of the CAS above it, i.e. 4000ft. There are also airways either side of the DTY CTA, beneath which the TA is 3000ft. This level of complexity in the airspace structure increases the potential for both level busts and infringements.
- 6.2 SIDs from Birmingham and East Midlands airports currently terminate at FL60. However, many crews also operate in/out of airports elsewhere in the UK (London TMA, NE airports, SW airports, Scottish TMA) with transition altitudes of 6000ft, where there is often an initial cleared level of 6000ft. This can lead them to expect a clearance to 6000ft. This results in Birmingham and East Midlands radar controllers correcting a number of incorrect first calls from aircraft before they become level busts. This is demonstrated in an analysis of an eleven day period from April 26th 2010 where Birmingham radar controllers recorded nineteen cases where a pilot called initially climbing to an altitude as opposed to a Flight Level as cleared.

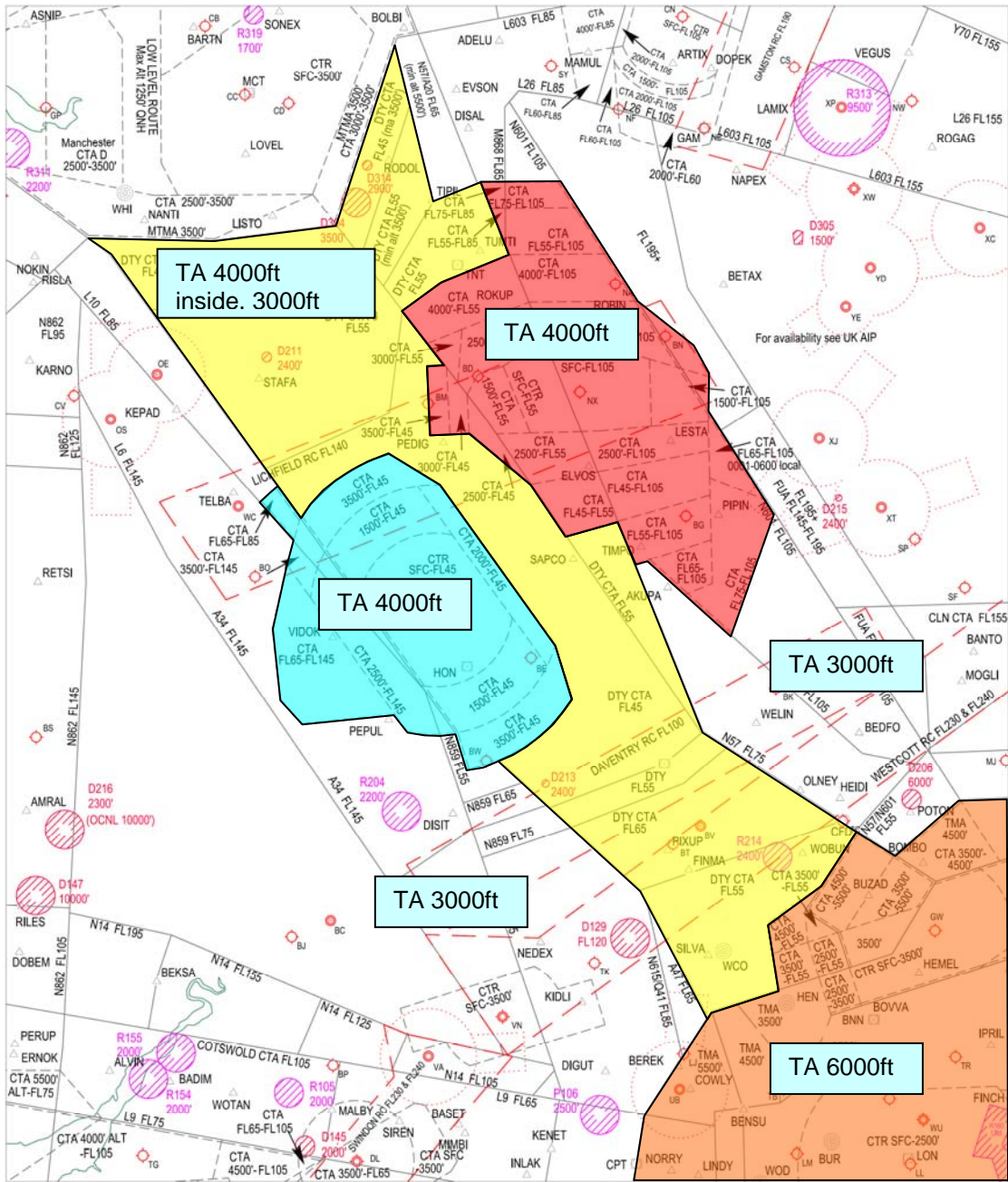


Figure 1: Existing Airspace

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Key:
DTY CTA
London TMA
East Midlands CTA
Birmingham CTA

7. Proposed Changes

The proposed changes to the airspace are as follows:

7.1 DTY CTA Confines & Classification

It is proposed that the airspace currently contained within the airways either side of the DTY CTA, namely A34, L6, L10, N57 and N601 be subsumed into, and become part of, the Daventry CTA. This airspace will retain its Class A status and there will be no other change to routes or procedures within as a result.

7.2 Transition Altitude inside Controlled Airspace

Inside CAS within the confines of the newly defined areas, the TA will become 6000ft.

7.3 Transition Altitude outside Controlled Airspace

Outside CAS in areas not overlain by the redefined DTY CTA, East Midlands CTA or Birmingham CTA, the TA will remain at 3000ft.

Beneath the CTAs referred to above, the TA will become 6000ft.

As the proposal states that the airways either side of the current DTY CTA will be subsumed into the DTY CTA (See **Figure 2** below), the Class G airspace beneath these airways will also operate on a TA of 6000ft. The DTY CTA will become a CTA beneath which all aircraft must operate on the same TA as the controlled airspace above (Revision to UK AIP ENR 1-7-2 para 4.1 required)

The usage of QNH will be clarified to align with other CTAs, and to follow AIP ENR 1-7-2 para 3.10:

When flying in Airspace below TMAs and CTAs detailed above, pilots should use the QNH of an adjacent aerodrome when flying below the Transition Altitude. It may be assumed that for aerodromes located beneath such Areas, the differences in the QNH values are insignificant.

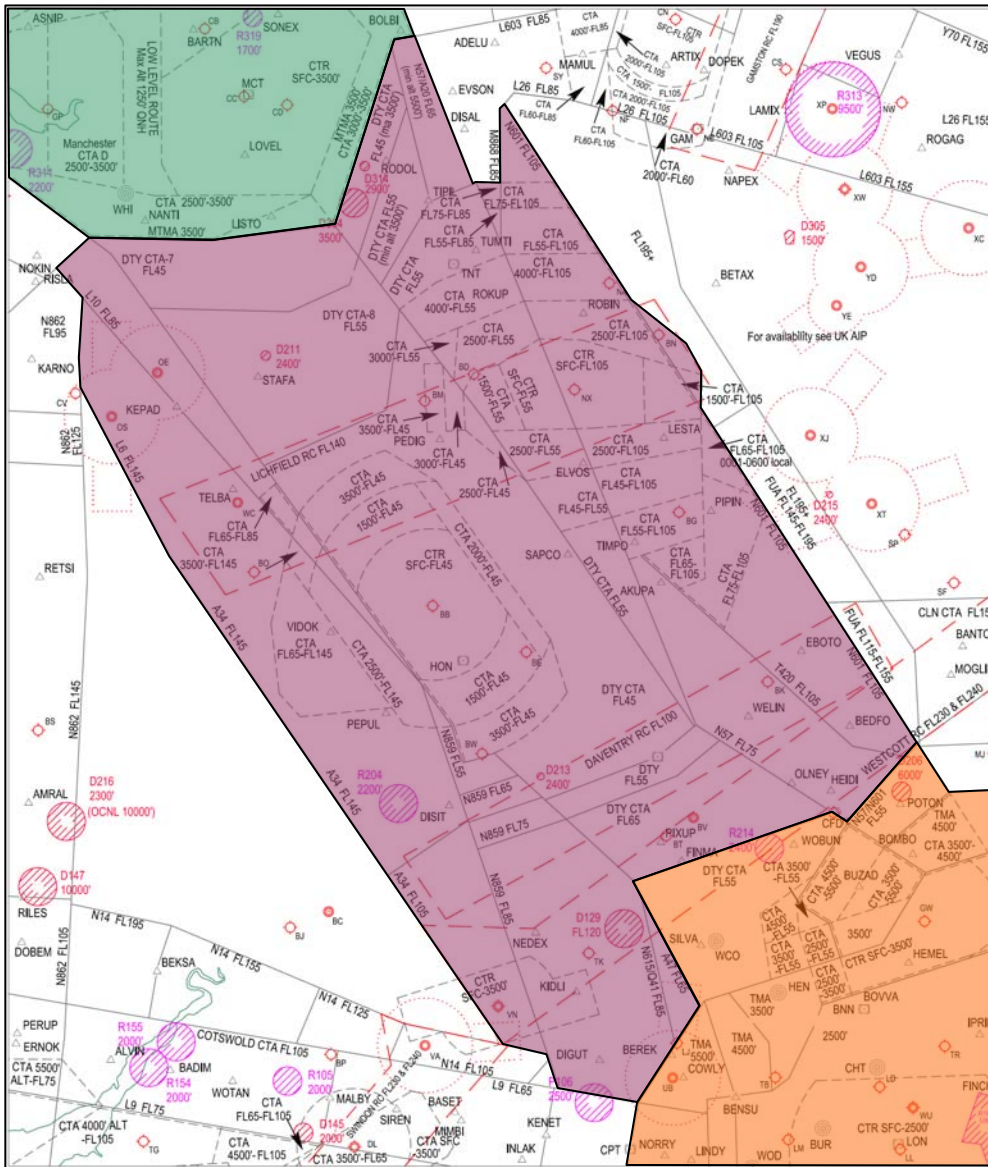
7.4 London TMA Northerly Confines

This proposal includes a section of the DTY CTA to the north of Luton which NATS proposes to redefine as London TMA, as shown in **Figure 2**. The CAS base in this area will adjust from FL55 to 5500ft, in accordance with the current TA in the London TMA and the proposed TA in the redefined DTY CTA. This does not change the classification or use of this airspace, but allows it to be better managed technically as part of the London TMA, including the way in which it is displayed on air traffic control radar.

This change will also ensure that there is no 'gap' between areas of 6000ft TA. It ensures that aircraft do not have to adjust from 6000ft to FL60, before adjusting back again.

Reclassifying this portion of airspace removes potential complexity from the ATC operation resulting from the new Midlands TA, in allowing Terminal controllers to operate on the London QNH in London TMA airspace as opposed to operating in adjacent areas on two different QNHs.

This does not change the use or management of this portion of airspace.



Key:
Proposed DTY CTA
Proposed London TMA
Manchester TMA (no change)

Figure 2 Proposed redefinition of DTY CTA confines

7.5 Controlled Airspace Bases

Airspace with a base less than the new 6000ft TA will adjust from a flight level to the equivalent altitude. For example, an area of Controlled Airspace with a base of FL45 with the current TA Altitude will adjust to a base of 4500ft with a 6000ft TA.

It is proposed that CAS with a base of FL65 will remain at FL65, whilst the DTY CTA is then added to the list of CTAs beneath which pilots must observe the same TA as the controlled airspace above them. This follows the precedent currently in operation within, for example, the East Midlands CTA to the north of Leicester with a CAS base of FL45 above a TA of 4000ft, which is managed successfully. Retaining the current airspace base configuration limits the amount of change being applied and an increase in operational complexity, and therefore reduces the risk of infringement of controlled airspace.

7.5 Procedures Inside Controlled Airspace

Within CAS, all SIDs will retain their current profiles, both lateral and vertical (although some flight level references will become altitude references where they are below the TA), with the exception of DTY departures from East Midlands, as illustrated below.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DISTANCES IN NAUTICAL MILES
BEARINGS, TRACKS AND RADIALS ARE MAGNETIC
ALTITUDES AND ELEVATIONS ARE IN FEET

EAST MIDLANDS
DAVENTRY

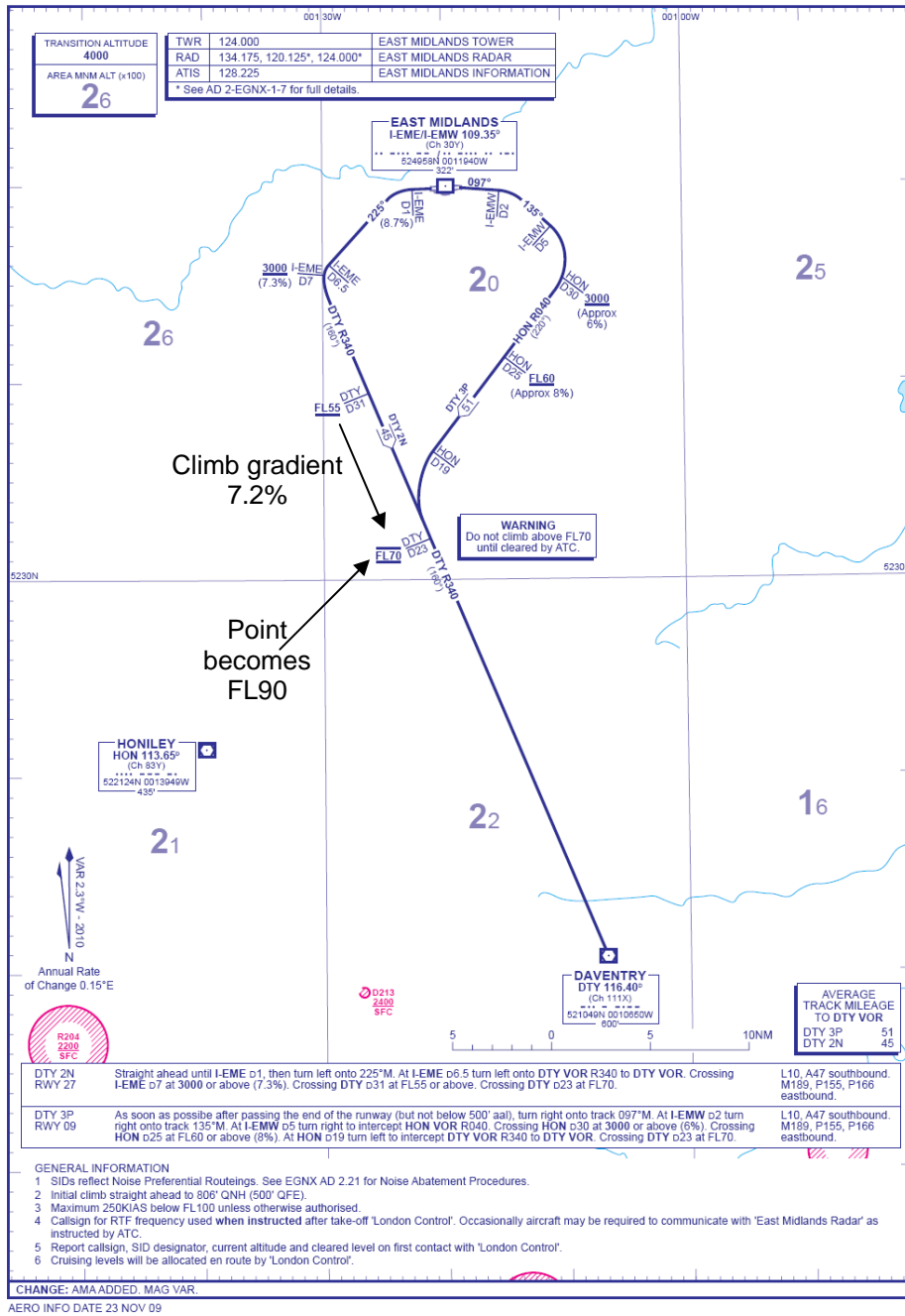


Figure 3 Illustration of changes to East Midlands DTY2N SID

7.6 East Midlands Departures

Currently, all SIDs from Nottingham East Midlands airport climb to FL60, with the exception of the DTY2N and DTY3P which both climb to FL70. It is proposed that with a 6000ft TA, those departures that currently climb to FL60 will climb to 6000ft. The DTY2N and DTY3P departures will climb to FL90, in order to ensure safe separation from Birmingham DTY departures. Climbing to FL90 also ensures that aircraft using these procedures are above the TA even on days when the pressure is low. This is illustrated in **Figure 3**, and will result in a continuation of the climb gradient of the SID, at 7.2%, in order that the aircraft reach FL90 by a point 23nm (DME) from DTY VOR on the 340 radial. At present, operational practice already results in 98% of traffic (from a

one-year sample, 2008) reaching FL90 at the prescribed point. The small numbers not making this constraint were placed on an alternative tactical ATC clearance. There is no evidence to suggest that this climb gradient might be unachievable. This enhanced climb also gives operational benefit to Swanwick controllers, as the Birmingham CTA extends upwards to FL85. The proposal for East Midlands DTY departures to climb directly to FL90 ensures that these departures always climb above this airspace automatically, as opposed to current practice in which London controllers issue a new clearance to FL90 as soon as that aircraft is in RTF contact with London Control.

Specific ATC procedures concerning the handling of these flights are currently under review by East Midlands ATC, Prestwick Centre and London Terminal Control, and a number of options are being considered. These will be subject to unit safety processes, and will be approved and implemented with this proposal.

7.7 East Midlands Arrivals

Specific ATC procedures concerning the handling of these flights are currently under review by East Midlands ATC, Prestwick Centre and London Terminal Control, and a number of options are being considered. These will be subject to unit safety processes.

7.8 Birmingham Departures

Currently, all SIDs from Birmingham airport climb to FL60. It is proposed that with a 6000ft TA, these departures will climb to 6000ft.

7.9 Birmingham Arrivals

Specific ATC procedures concerning the handling of these flights are currently under review by Birmingham ATC, Prestwick Centre and London Terminal Control, and a number of options are being considered. These will be subject to unit safety processes, and will be approved and implemented with this proposal.

7.10 DAYNE Hold

The DAYNE hold for Manchester Airport is located across the boundary between the Manchester TMA and both the current and proposed DTY CTA. Specific ATC procedures concerning the management of the hold are currently under review by Manchester ATC and Prestwick Centre, and a number of options are being considered. These will be subject to unit safety processes, and will be approved and implemented with this proposal.

8. Justification

8.1 Justification for redefining the DTY CTA, and the change of TA to 6000ft in the DTY CTA, Birmingham CTA and East Midlands CTA can be summarised as follows:

- Progresses CAA policy to harmonise TA inside UK CAS.
- Removes the discrepancy between expected level and cleared level for Birmingham SIDs (i.e. 6000ft/ FL60), reducing the complexity of the airspace and therefore the potential for level bust.
- Harmonises TA across airspace boundaries with the London TMA.
- Reduces uncertainty as to which TA should be used by traffic outside CAS transiting beneath the DTY CTA
- Reduces possibility of (vertical) infringement into CAS in the Midlands region, as all traffic will use the same TA.
- Simplifies CAS boundaries.
- Simplification of airspace classification and operating practices in a complex area.
- Reduces complexity and therefore infringement risk, due to all operators using the same pressure datum in the vicinity of CAS.

This change is intended to simplify and improve safety performance both within and beneath the airspace in question.

8.2 Within CAS this will allow aircraft on SIDs from both Birmingham and East Midlands airfields (with the exception of the East Midlands DTY departure, referred to in 7.7, above) to climb to an altitude initially as opposed to a flight level. This will allow airlines to comply with CAA guidance to change altimeter pressure setting from QNH to standard pressure on receipt of an executive instruction from ATC, a procedure which is not possible using the current SIDs.

8.3 Beneath the CAS in question, the harmonised TA will allow pilots transiting the area to retain use of a single TA across a much larger area of airspace, and reduces the need to regularly adjust from altitude to flight level, and therefore from QNH to standard pressure several times, in order to remain clear of CAS. The use of a single TA in the region is expected to simplify route planning and reduce the risk of infringement for those pilots operating outside controlled airspace.

9. Environmental Effects

This change will not affect the way aircraft fly, either vertically or laterally, in the prescribed region as it will simply formalise current operational practice. IFR flights would fly the same routes and vertical profiles as today. Although the current published DTY2N and DTY3P departures currently climb to FL70, in reality 98% of the traffic receives tactical climb before this point², and is currently at or above FL90 by the proposed point. As the position/height of aircraft will not change there will be no change to noise exposure, CO₂ emissions or local air quality.

10. Design Options

This proposal seeks to harmonise Transition Altitude in the Midlands region, in line with CAA policy. In order to achieve this aim, a number of options were considered. However, only one option (Option 4, below) has been selected and is being proposed

² NATS Operational Analysis, 2009

here as both fulfilling UK CAA policy and as being suitable for implementation. The options considered are summarised below:

10.1 **Option One**

Do nothing: This option retains the status quo, and neither enacts UK CAA Policy, nor implements the possible safety improvements available through the proposed change.

10.2 **Option Two**

Harmonise Transition Altitude in both the Midlands region and the Manchester TMA: This option would have resulted in a harmonised TA throughout all UK CAS. However, this would cause further issues with procedures in the Manchester TMA and surrounding sectors and so could not be progressed at this time. We will, however, seek to complete the harmonisation exercise within the Manchester TMA at a later stage when more wide-ranging changes in the Manchester area are being considered.

10.3 **Option Three**

Harmonise the Transition Altitude within the current DTY CTA: This option retains the current definition of the DTY CTA, and limits the harmonisation exercise to the Midlands region. It also includes the DTY CTA in the AIP ENR 1-7-2 para 4.1. This option was assessed by the Air Traffic Service Units concerned, and rejected as adding further complexity and risk to an already complex region, as aircraft beneath CAS would still have to transit several areas with differing Transition Altitudes in order to cross beneath the CTA, but with a greater vertical distance between those Transition Altitudes than at present.

10.4 **Option Four**

Redefine the boundaries of the DTY CTA, and harmonise the Transition Altitude both within and beneath those boundaries. This is the option being proposed here as the most suitable option within which to harmonise Transition Altitude in this region. It simplifies a complex area of airspace, and should allow improved operations both within CAS and beneath.

10.5 **Why not disestablish the DTY CTA?**

The proposal to retain the DTY CTA allows the airspace in the region to be added to that list in AIP ENR1-7-2 para 4.1 which means that pilots flying beneath that area of CAS must use the same Transition Altitude as the airspace above. This gives safety benefit by simplifying the area and ensuring that all aircraft, both within and outside CAS, are using the same Transition Altitude. Had NATS proposed to disestablish the DTY CTA, this would not be possible, resulting in picture of similar complexity to the current situation.

11. Next steps

- 11.1 NATS requests that stakeholders consider this proposal and provide a written response to us. In accordance with the CAA Airspace Change Process (Ref 1), a period of 12 weeks has been allowed for this stakeholder consultation. Where possible an early response would be appreciated so that any issues arising may be addressed as soon as possible.

The closing date for replies associated with consultation issues is August 20th 2010.

- 11.2 We request that you reply to this consultation even if you have no objection to the proposal.
- 11.3 In your response to this consultation you may wish to consider providing answers to the following questions:
- a) Do you operate within CAS in the area in question?
 - b) If yes, do the proposals benefit your operation?
 - c) Do you operate beneath the airspace in question?
 - d) If yes, does the use of a harmonised TA aid in simplifying your operation?
 - e) Are there any unintended consequences of the proposed changes that you feel NATS should be aware of?
- 11.4 Responses to this consultation will be collated and a summary will be circulated to the CAA and participating stakeholders once the consultation has closed. Any matters raised during the consultation period that have not been adequately considered during the development of the proposed design may require NATS to make changes to the proposal. Any such changes may require further consultation as determined by the CAA.
- 11.5 If and when NATS is satisfied, having considered the consultation responses, that the proposal achieves the appropriate balance between all the stakeholder requirements, a formal airspace change proposal will be submitted to the CAA for consideration in line with the airspace change process (Ref 1). This will include a full record of all feedback from this consultation.

Responses and feedback should be sent:

By email to: airspaceconsultation@nats.co.uk

Or by post to: Midlands Transition Altitude Harmonisation Consultation Coordinator
NATS Prestwick Centre
Rm G111
Fresson Avenue,
Prestwick,
Ayrshire
KA9 2TR

- 11.6 Comments regarding NATS' compliance with the consultation process as set out in the UK CAAs guidelines for airspace change process (Ref 1) should be directed to the CAA at:

Head of Business Management
Directorate of Airspace Policy
CAA House
45-59 Kingsway
London
WC2B 6TE
E-mail: businessmanagement@dap.caa.co.uk

12. References

1. CAA Directorate of Airspace Policy, March 2007, *CAP 725 CAA Guidance On The Application Of The Airspace Change Process*
2. CAA Safety Regulation Group, March 2010, *CAP 493 Manual of Air Traffic Services Part 1*
3. Department for Business Information and Skills, 2008, *HM Government Code of Practice on Consultation*, <http://www.berr.gov.uk/policies/better-regulation/consultation-guidance> (accessed May 24th 2010)

13. Glossary

| | |
|---------|---|
| Amsl | Above mean sea level |
| ASR | Altimeter Setting Regions |
| ATC | Air Traffic Control |
| CAA | Civil Aviation Authority |
| CAS | Controlled Airspace |
| CTA | Control Area: <i>"Controlled airspace which has been further notified as a control area and which extends upwards from a notified altitude or flight level. (ANO)"</i> (Ref 2) |
| CTR | Control Zone <i>"Controlled airspace which has been further notified as a control zone and which extends upwards from the surface. (ANO)"</i> (Ref 2) |
| DAP | Directorate of Airspace Policy (the department of the CAA responsible for airspace matters) |
| DTY CTA | Daventry Control Area |
| FIR | Flight Information Region |
| IFR | Instrument flight rules |
| QNH | Atmospheric pressure at mean sea level |
| RWY | Runway |
| SVFR | Special VFR |
| SID | Standard Instrument Departure |
| TMA | Terminal control area |
| VFR | Visual flight rules |

Appendix A: Operation of UK Airspace

Details relating to the operation of UK airspace can be found on the CAA website at <http://www.caa.co.uk/default.aspx?catid=7&pagetype=90&qid=295>

ATC Services

Responsibility for the provision of ATC services in the UK lies with both civil and military service providers that will provide a service to both civil and military aircraft within their areas of responsibilities. For the most part and in very general terms, activity inside controlled airspace is managed by NATS (En-route) plc, whose operation is regulated by the Civil Aviation Authority. Much of NATS activity is conducted from 2 control centres:

- **NATS Swanwick (Area Control and Terminal Control):** from where the flow of traffic in UK airspace south of 55 degrees North (over England and Wales) in the Upper Airspace, along the Airways system and within the high levels of Control Areas is managed; also from where the flow of traffic inbound to and outbound from the major airports in the South East of England is managed.
- **NATS Prestwick Centre:** from where the flow of traffic in UK airspace north of 55 degrees North (over Scotland) in the Upper Airspace, along the Airways system and within the high levels of Control Areas, and the flow of traffic inbound to and outbound from the major airports in the Manchester region is managed

Appendix B: List of Stakeholders

Local Airfields

Birmingham
 East Midlands
 Coventry
 Luton
 Manchester
 Cosford (RAF)
 Halfpenny Green
 Snitterfield
 Wellesborne
 Gloucester
 Cottesmore
 Wittering
 Sibson
 Conington
 Wyton
 Bourne
 Little Gransden
 Fairford
 Hinton-in-the-Hedges
 Turweston
 Silverstone
 Weston-on-the-Green
 Oxford
 Wescott
 Cranfield
 Henlow
 Old Warden
 Husband's Bosworth
 Edgehill
 Abingdon
 Bidford
 Nottingham Tollerton
 Hucknall
 Ripley
 Derby
 Tatenhill
 Langar
 Leicester
 Spanhoe
 Sywell
 Syerston
 Woodford
 Camphill
 Hawarden
 Doncaster

NATMAC (National Air Traffic Management Advisory Committee)

Airport Operators Association (AOA)
 AOPA UK
 British Airways
 BAe Systems
 British Airline Pilots Association (BALPA)
 British Air Transport Association (BATA)
 British Balloon & Airship Club (BBAC)
 British Business & General Aviation Association (BBGA)
 British Gliding Association (BGA)
 British Hang Gliding & Paragliding Association (BHP)

Airlines

Flybe
 Ryanair
 BMI Baby
 Monarch
 Thompson
 Thomas cook
 Lufthansa
 Air France
 RVL (Atlantic)
 Aero Nova
 Aerologic
 Air Contractors
 Bluebird Cargo
 BMI
 BMI Regional
 BMI Baby
 DHL Air
 Capital Charter
 Donair Flying School
 Eastern Airways
 Europe Airpost
 European Air Transport
 Icelandair
 JCB
 Jet2
 Logan Air
 Manx 2
 Ryanair
 Star Air
 Swift Air
 Thomas Cook
 Thompson
 Titan
 TNT
 UPS
 Emirates
 Cityjet

Other

MoD
 NATS Prestwick Centre
 NATS Swanwick

British Microlight Aircraft Association (BMAA)
British Parachute Association (BPA)
British Airports Authority (BAA)
British Gliding Association (BGA)
British Helicopter Advisory Board (BHAB)
MOD ATC Flying
MOD DASC
European UAV Systems Centre Ltd
Guild of Air Pilots & Air Navigators (GAPAN)
General Aviation Safety Council (GASCo)
Guild of Air Traffic Control Officers (GATCO)
Helicopter Club of Great Britain (HCGB)
Heavy Airlines
HQ 3AF, RAF Mildenhall
HQ DAAvn
Light Airlines
Popular Flying Association (PFA)
PPL/IR Europe
Royal Aero Club (RAeC)
RAF HQ AIR
UK Airprox Board (UKAB)
UKFSC