CONSULTATION DOCUMENT FOR CONTROLLED AIRSPACE AT COVENTRY AIRPORT (WMIAL)

CONTENTS

ANNEX

SECTION 1

1. INTRODUCTION

1.1 With the rapid expansion of Coventry Airport since April 2004, as a result of the introduction of Thomsonfly as an airline operator basing four B737-500 aircraft there to operate a flying programme, it has been necessary to undertake a detailed study of the airspace management aspects.

1.2 This has resulted in the need to prepare a case for the introduction of controlled airspace at Coventry Airport.

1.3 This consultation process will form an important part of that justification to be submitted to the Directorate of Airspace Policy for a Class D control zone and associated control area at Coventry Airport. This will interface with the adjacent controlled airspace of Birmingham International Airport (BIA) and will generally be aligned with runway 23/05 at Coventry Airport.

1.4 Linked with these proposals are revised Noise Preferential Routes (NPRs) which take account of both the environmental aspects as well as the operational ATC aspects in respect of Coventry departures and their impact on Birmingham traffic. It is not intended that SIDs/STARs will be proposed as part of this consultation.

1.5 The introduction of controlled airspace at Coventry Airport will provide the requisite protection to passenger carrying aircraft as well as create a known traffic environment which will enhance the integration of IFR and VFR traffic and have associated flight safety benefits.

1.6. The report is made up of a number of differing sections with each relating to the operational requirements detailed in CAP 724 and 725.

SECTION 2

2. BACKGROUND

2.1 Coventry Airport is a regional airport located just over 11nm south east of Birmingham International Airport (BIA) and lies below the BIA control area where the base is at an altitude of 1500ft. It is situated 3nm SSE of Coventry city.

2.2 Coventry Airport has one runway 05/23 which is 2008m long and 46m wide. There is no parallel taxiway and no provision as yet for an east or west loop taxiway. The airport currently operates in Class G airspace with an Aerodrome Traffic Zone (ATZ).

2.3 Birmingham Approach Control is the controlling authority for all Coventry airways departures with Coventry ATC required to notify Birmingham when such flights are starting for departure in order that an airways clearance can be requested. Additionally, Coventry ATC are required to confirm departure runway and coordinated take-off time if applicable.

2.4 Coventry then have to obtain a zone release from Birmingham when aircraft are lined up on the runway albeit there are often delays in receiving this release. Birmingham expect traffic to be airborne within two minutes of these departure instructions having been passed. Aircraft then have to be transferred to Birmingham when clear of any conflicting Coventry traffic and entering controlled airspace.

2.5 All arriving airways traffic for Coventry is currently controlled by Birmingham Approach with an inbound estimate for the CT NDB notified to Coventry. When requested, Coventry will advise Birmingham of the landing runway and type of approach which may be expected as well as issuing the lowest available level for the inbound traffic. Birmingham will then issue a release point at which control of the aircraft can be assumed by Coventry.

2.6 For Coventry inbound traffic on runway 23, Birmingham will aim to hand all traffic to Coventry whilst within controlled airspace although inbounds from London Terminal Control airspace may be given a direct route to the CT NDB in descent to FL50 and handed to Coventry Radar for further descent direct on to a left base leg. Otherwise, inbounds for either runway 23 or 05 follow the appropriate Birmingham STAR initially as follows:-

From the south:
HON-EBONY-GROVE – radar vectoring by Birmingham Radar for a left base leg for runway 05 or left hand downwind leg for runway 23 (Annex A refers).

From the north:
CHASE – radar vectoring by Birmingham Radar for a left base leg for runway 05 or left hand downwind leg for runway 23.

2.7 The above coordination requirements allow for the fact that Coventry Radar should be able to accept radar identification of all inbound IFR traffic at a reasonable time after receipt of the inbound estimate in order to provide radar vectoring to the ILS or an alternative approach aid.

SECTION 3

3. JUSTIFICATION FOR CONTROLLED AIRSPACE

There are a number of factors which contribute to the justification for the establishment of controlled airspace at Coventry Airport and these are detailed in this section with explanatory notes.

3.1 Air Transport Movements – Coventry Airport

3.1.1 Airfields in the local area will be aware that Coventry Airport has experienced a substantial increase in the level of air transport movements since April 2004, due to the introduction of flight operations by Thomsonfly using B737-500s.

3.1.2 Indeed, this culminated in a total of 5859 Thomsonfly aircraft movements by the end of December, 2004, with a throughput of 460,322 passengers in that nine month period and a total of 8005 movements for the twelve month period ending 31st March, 2005.

3.1.3 In 2005, Thomsonfly statistics indicated that there were 8210 air transport movements between 1st January and 31st December with a substantial increase in passengers to 705,617.

3.1.4 It is expected that there will be a continuing expansion in Thomsonfly operations at Coventry Airport as their parent company (TUI) bought the airport during the first quarter of 2004 although it was sold by them again at the end of 2005.

3.1.5 For 2007, forecast passenger numbers are 0.98m rising steadily to 1,952,643 in 2014. General and business aviation, training and club flights are predicted to show marginal increases.

3.1.6 It should also be noted that there are a number of other non-related IFR movements at Coventry Airport with approximately 6,000 such ATMs annually. When all other aircraft movements are included, there was a total of 65,344 for the calendar year 2004.

3.1.7. With an increasing demand at Coventry generating such a high volume of air transport movements, it should be emphasised that Coventry Airport lies in Class G airspace with an Aerodrome Traffic Zone of radius 2nm up to 2000ft although the section above 1500ft amsl is within BIA's control area Consequently, serious consideration has had to be given to the safety implications of IFR public transport traffic operating in Class G airspace during critical phases of flight. This applies in particular to departures from runway 05 from Coventry and to runway 23 arrivals which generally have to operate in Class G airspace when below the Daventry Control Area (base FL45) for a portion of their flight.

3.2 Thomsonfly Operations – Coventry Airport

3.2.1 Thomsonfly representatives emphasised in early discussions with the management at Coventry Airport that the policy of the airline operator was to have the maximum protection of controlled airspace for their passenger air transport movements as far as practicable for safety reasons, particularly during critical phases of flight such as on initial climbout and on intermediate/final approach.

3.2.2 It was, however, recognised that there would be a need to review a case for controlled airspace after experiencing operations in/out of Coventry Airport for a reasonable period.

3.2.3 As Thomsonfly were involved in four approxes during their first eighteen months of operation, the establishment of controlled airspace has now become a priority issue and, to this end, it is understood that the Managing Director of Thomsonfly has written separately to DAP stressing this very fact.

3.3 Interaction with Birmingham Traffic

3.3.1 The proximity of the two airports at Birmingham and Coventry which are just over 11nm apart generates a complex ATC environment which is exacerbated by their differing runway configurations (Annex A refers).

3.3.2 The main runway at BIA is runway 15/33 with runway 33 utilised as the preferred runway in use whenever possible for environmental reasons if the runway surface is dry and there is a light surface wind.

3.3.3 The runway alignment of 23/05 at Coventry generates a higher utilisation of runway 23 due to the prevailing wind in that area and, in addition, the fact that runway 23 presents less difficulty with regard to the integration of traffic using the two airports. Runway 23 is used for approximately 70% of the time.

3.3.4 There are sixteen differing runway configurations which can be used at the two airports although five of these variations have no perceived impact on BIA airspace capacity. However, two of these variations generate a major interaction between the two airports requiring ATC action with these being:-

- Runway 33 arrivals at BIA combined with runway 05 arrivals at Coventry.
- Runway 33 arrivals at BIA combined with runway 23 departures from Coventry.

3.3.5 The remaining nine runway configurations currently generate some potential aircraft interaction which normally require ATC intervention and coordination to be effected between the two ATSUs.

3.3.6 This situation prevails at a time when BIA is also experiencing an increased throughput in passengers and ATMs with 8.8 million passengers using the airport in 2004. It is anticipated that this throughput will increase by approximately 10% per annum until 2010 after which it reduces to 5% with a steady increase in ATMs.

3.3.7 The increasing traffic throughput at both airports will have an impact on controller workload, increasing the level of coordination and reducing the degree of flexibility at both ATSUs as a consequence. It is therefore essential that consideration is given to the introduction of controlled airspace at Coventry with it integrated with BIA's controlled airspace thus creating a known traffic situation in a complex air traffic environment. This would be incorporated within the existing Letter of Agreement.

3.3.8 Additionally, a significant factor in this justification is the fact that the introduction of controlled airspace at Coventry Airport (interfaced with the Daventry Control Area) will minimise the need for Coventry IFR traffic to/from the south to enter BIA's controlled airspace to/from the airways system.

3.3.9 If this was combined with the proposed revisions to Coventry's Noise Preferential Routeings, the following aspects should be recognised:-

- Runway 05 airways departures routeing south or south east would not enter BIA's controlled airspace.

- Runway 23 airways departures routeing south or south east might only enter the extreme south east corner of BIA's control area for a matter of seconds as they climb.

- Runway 23 inbound airways traffic from the south or south east, if routed direct to the CT NDB (or on the DAVENTRY R350) with a radar handover to Coventry Radar, would not enter BIA's controlled airspace.

- Runway 05 inbound airways traffic from the south or south east could be routed towards the CT NDB initially with a radar handover to Coventry Radar for vectoring right hand downwind and descent to 2000ft QNH to get them below potential inbound traffic to BIA's runway 33 (or runway 15 departures). Such traffic could also be allocated this descent in order to be below 3500ft QNH under BIA's southernmost control area. The traffic would only enter the next section of the BIA control area temporarily when closing final approach to runway 05 at or above 1500ft QNH where the base of the control area is at an altitude of 1500ft. Such an arrangement would have considerably less impact than Coventry inbounds following a STAR to HONILEY with radar vectoring by Birmingham Approach.

3.4 Safety Aspects

3.4.1 ATC at Coventry Airport have tabulated a list of fifteen occasions where MORs or TCAS reports have been filed at, or in the vicinity of, the airport since July 2003 with them collated by the Manager, ATS as having a bearing on the justification for controlled airspace. These are detailed at Annex B.

3.4.2. In addition, a radar log was introduced by the Coventry Manager, ATS, with effect from 1st August 2004 until 1st August 2005 in which entries were made with reference to unknown traffic crossing the final approach track, or otherwise affecting IFR traffic inbound to or outbound from Coventry Airport.

3.4.3 It is worth noting that there are one hundred and forty entries in this log and a further fourteen recorded in a VCR log over the same period.

3.4.4 These logs will be made available as part of the formal application but as separate documents.

3.5 Operational Efficiency Benefits

3.5.1 There are significant operational efficiency benefits to airline operators using Coventry Airport if Coventry obtain controlled airspace. Amongst these are the possibility of reducing the number of delays to outbound airways traffic and, in addition, the potential savings in fuel burn for inbound traffic from the south, particularly on runway 23.

3.5.2 Section 2 detailed the procedures for obtaining a departure release from Birmingham ATC for outbound airways traffic routeing south. At present, these delays can be up to 20 minutes long which can cause slot times to be missed as well as prolonging runway occupancy by pending departures.

3.5.3 The provision of controlled airspace could allow a review of procedures to be undertaken which might permit runway 05 departures to be coordinated directly with Terminal Control for release provided liaison is effected with Birmingham Approach. Such traffic could then be transferred directly to Terminal Control when clear of other Coventry traffic.

3.5.4 With regard to savings in fuel burn, inbound traffic from the south on runway 23 could generate significant savings if allowed to route from the DTY VOR on the 350 degree radial for radar vectoring direct on to a left base.

3.5.6 When this route is examined in comparison with the STAR for Birmingham via HONILEY-EBONY-GROVE, there is a saving in track miles equating to 43nm and that is assuming Coventry inbounds do not have to hold for any period prior to being vectored downwind left hand for runway 23 at Coventry.

3.5.7 If it is assumed that Thomsonfly experienced an average of twenty four flights a day in the year commencing April 2004, it follows that twelve of those flights were inbounds equating to 4,368 PATMs over a twelve month period (excluding Christmas Day).

3.5.8 As runway 23 is used for approximately 70% of the time due to the prevailing winds, this equates to 3057.6 flights by Thomsonfly.

3.5.9 If all these inbound flights had to follow the full STAR (but not hold), the total additional track miles would equate to 131,476nm. However, as a number have continued to follow the optimum route direct on to a left base for runway 23, we can assume that a maximum of 50% have had to follow the full STAR which still equates to 65,738nm excluding any required holding for Birmingham traffic reasons.

3.5.10 This represents a huge revenue expenditure for Thomsonfly particularly as fuel costs can cover 30% of an airline operator's total operating expenditure.

3.5.11 If their B737-500s burn approximately two tonnes of fuel per hour, this could total approximately 548 tonnes over a twelve month period in the above flight sector at an intermediate speed of 240kts.

3.6 General Aviation Activity

3.6.1 Coventry Airport is situated in Class G airspace and is surrounded by a significant number of other airfields, private strips, microlight and glider sites, helicopter pads and model aircraft flying sites within a radius of 30nm.

3.6.2 Data has been collated in respect of all of the known sites within the above radius. This was an important aspect of the design phase of the controlled airspace proposals and, in addition, formed the necessary listing in preparation for the informal consultation process .

3.6.3 The above airfields and flying sites generate a high level of general aviation activity in the Coventry area particularly those within a 15nm radius of Coventry Airport amongst which are the following:-

- Snitterfield which lies on the runway 05 centreline at a range of approximately 11.9nm from touchdown and has significant gliding operations.

- Husbands Bosworth which lies approximately 17nm east north east of Coventry Airport and also has significant gliding operations. With the prevailing wind being from the south west, the preferred operating area is in that area and south towards Daventry bringing gliders in close proximity to Coventry's proposed controlled airspace.

- Wellesbourne Mountford which lies approximately 12nm south west of Coventry Airport and has general aviation operations at the airfield.

- Bruntingthorpe which lies approximately 15nm east north east of Coventry Airport and has general aviation operations at the airfield.

- There are eight helicopter pads identified on aeronautical charts within a 15nm radius of Coventry Airport.

3.6.4 In addition, there are a number of transit movements by GA traffic over or abeam to the east of the CT NDB which is situated on runway 23 approach centreline at a range of just under 4nm. This is because of the route structure LICHFIELD-CT-DAVENTRY which ensures that VFR traffic can remain just east and clear of BIA controlled airspace whilst at the same time remaining just west and clear of the East Midlands control area.

3.6.5 Statistical data relating to such transit flights has been collated as well as data on the effect of other airfields and aviation activities on Coventry operations.

3.6.6 Coventry Airport itself has a number of based private aircraft and, in addition, seven flying training schools with four using fixed wing aircraft such as Cherokee and Cessna 152 and three rotary wing aircraft with approximately 120-150 based GA aircraft. Because of the proximity of BIA's controlled airspace, the majority of flying training is undertaken to the east and south east of the airfield below FL45 which is the base of the Daventry Control Area in that vicinity.

3.6.7 In early 2002, a Business Aviation Centre commenced operations at Coventry Airport with this capable of handling private and executive flights up to a maximum of fifty passengers aircraft capacity. A number of business jets, private and survey flights are handled with related statistical data as detailed overleaf:-

Flight Activity	**2003 – Base Line Figures**	**2014 – Forecast Data**
Freight air transport	5,568	7,896
Training/club flights	41,260	48,686
General /business aviation	11,148	13,156
Survey/marine unit	160	189
Total	**58,136**	**69,927**

3.6.8 All of these factors generate the need for a known traffic environment within a radius of 20nm of Coventry Airport. The establishment of controlled airspace would contribute to this need.

3.7 Military Operations

3.7.1 Although there are no military bases established within close proximity to Coventry Airport, there is nonetheless a need to take account of high speed low-level operations by military jet traffic in the Coventry area.

3.7.2 The nearest significant military bases are in fact as follows:-

RAF Cottesmore – 38nm to the north east. RAF Wittering – 39.5nm to the east north east.

3.7.3 Coventry Airport is situated immediately adjacent to Low Flying Area 6 and has a number of low level routes to the south and east of the airport with the primary routes shown on aeronautical charts as follows:-

- An eastbound route which crosses the runway 05 extended centreline at approximately 8nm WSW before passing approximately 6nm south of the airport.
- A route in both directions on a NW-SE axis which crosses runway 23 approach centreline at approximately 10nm range at its nearest point.
- A route in both directions on a NE-SW axis which takes military traffic on either side of the high masts at Rugby depending on the direction of travel. Rugby is situated approximately 9nm east of Coventry Airport. This particular route appears to be allocated for military traffic to/from RAF Wittering.

3.7.4 It is again desirable to create a known traffic environment within a radius of at least 20nm of Coventry Airport particularly to ensure the safe integration of military fast jet traffic and civil airline jet traffic in this area. Although such military traffic may, under normal circumstances, be operating below 500ft agl, the terrain features and obstructions on the above routes will generate a situation whereby this will be the equivalent of above 1000ft QNH. At the same time, radar controllers at Coventry are permitted to descend inbound traffic to 1500ft QNH in the western sector of the Radar Vectoring Area for runway 05 and 1700ft QNH on runway 23 within the promulgated final approach area.

3.7.5 If military fast jet traffic is operating in the low Flying Area (LFA) on a tactical exercise, they may well be up to 2000ft QNH in the general area. Cognisance has also to be taken of the fact that, at any time, military pilots encountering adverse weather conditions at low level will climb immediately to minimum sector altitude or above for safety reasons. This can create a potential aircraft conflict situation in Class G airspace in a matter of seconds.

SECTION 4

4. ANALYSIS OF CHANGE

4.1 As part of this project, consideration has been given to the possibility of alternative options to the introduction of controlled airspace with Coventry as the controlling authority. These have been subject to a safety analysis and are detailed below.

4.2 Option to "Do Nothing"

4.2.1 One option is not to introduce controlled airspace at Coventry Airport but to continue operations with an Aerodrome Traffic Zone and have the majority of both IFR and VFR traffic operate in Class G airspace.

4.2.2 If this course of action were to be adopted, there are a number of factors coming into play amongst which would be the following:-

- The safety implications of an increasing level of IFR public transport traffic operating in uncontrolled airspace during critical phases of flight without a known traffic environment having been created.

- The failure to meet the operational requirements of Thomsonfly as a major airline operator.

- The potential effect on BIA's airspace capacity of Coventry IFR traffic (and particularly Thomsonfly) having to operate in their control zone/control area with inbound traffic following a Birmingham STAR in order to retain the protection of controlled airspace as far as practicable (although this is limited when runway 23 is in use).

- The increasing complexity associated with the air traffic management of two expanding regional airports each with a steadily increasing level of air transport movements and passenger levels.

- The complexity exacerbated by the fact that there are sixteen differing runway configurations possible in the Birmingham/Coventry interface with the main runways almost at right angles to each other. In fact, inbound traffic at 10nm range to runway 33 at Birmingham crosses the runway 05 extended centreline for Coventry at just over 5nm from touchdown (at Leek Wootton).

- The additional hazard generated in Class G airspace by the number of gliders operating in the vicinity of Coventry from sites such as Snitterfield and Husbands Bosworth. A number may not be radio equipped and will normally be suppressed by the S511 radar data processor thus being unknown and unseen by Coventry Radar controllers.

4.2.3 For other airspace users operating in Class G airspace in the vicinity of Coventry Airport, there is the increasing risk arising as a consequence of an expansion of IFR air transport movements operating in a busy and complex environment with a large number of VFR flights most of which being unknown traffic to Coventry controllers.

4.2.4 The general public are also aware of the increasing threat to their safety when travelling from busy airports which do not have the protection of controlled airspace because of the media coverage arising from recent GATCO statements. As a consequence, they will not tolerate any incident or major accident arising as a result of a known threat to their safety particularly as Coventry Airport was one of the specific airports referred to in the press/media.

4.2.5 In summary, the combination of all the above factors would have a major impact on system functionality both at Birmingham and at Coventry with significant impact on Birmingham's airspace capacity and an increasing risk to IFR air transport movements at Coventry and, in particular, inbound traffic on runway 23 there.

4.2.6 A safety analysis of the above scenario indicates that such a course of action is not recommended and that it is imperative that controlled airspace is introduced at Coventry Airport in the near future.

4.2.7 With the expectation of just under one million passengers throughput forecast for 2007, it is also incumbent upon Coventry Airport authority to seek this implementation as soon as practicable as the only possible risk mitigation measure.

4.3 Option to Extend BIA Controlled Airspace

4.3.1 An alternative option would involve the possibility of the proposed Coventry control zone/control area being established but with the controlling authority being allocated to NATS at Birmingham ATSU.

4.3.2 NATS at Birmingham would then undertake the Approach/Approach Radar functions on behalf of Coventry ATSU who might only retain an Aerodrome Control Unit.

4.3.3 This would of course involve specific contractual arrangements being put in place with Coventry Airport authority in effect sub-contracting a major part if not all of the air traffic service provision to NATS.

4.3.4 If this course of action is reviewed in more detail, the following factors would have to be considered:-

- There would be a need to install the physical infrastructure in BIA's Approach Control Room for a Coventry Approach Radar suite with radar systems and communications.
- There would be a need to detach Coventry radar controllers to BIA or indeed to recruit them as NATS controllers.
- These arrangements would of course reduce the coordination commitments whilst mitigating the critical interface significantly.

4.3.5 A safety analysis of this scenario indicates that it is certainly a feasible option for future consideration but would require further research through computer simulation techniques and modelling which could be time-consuming.

4.3.6 Negotiations on this option could well be protracted because Birmingham Airport authority, who have NATS as their ATC Provider, currently have a formal objection lodged against the Coventry Airport development although are receptive to the principle of ATC integration.

SECTION 5

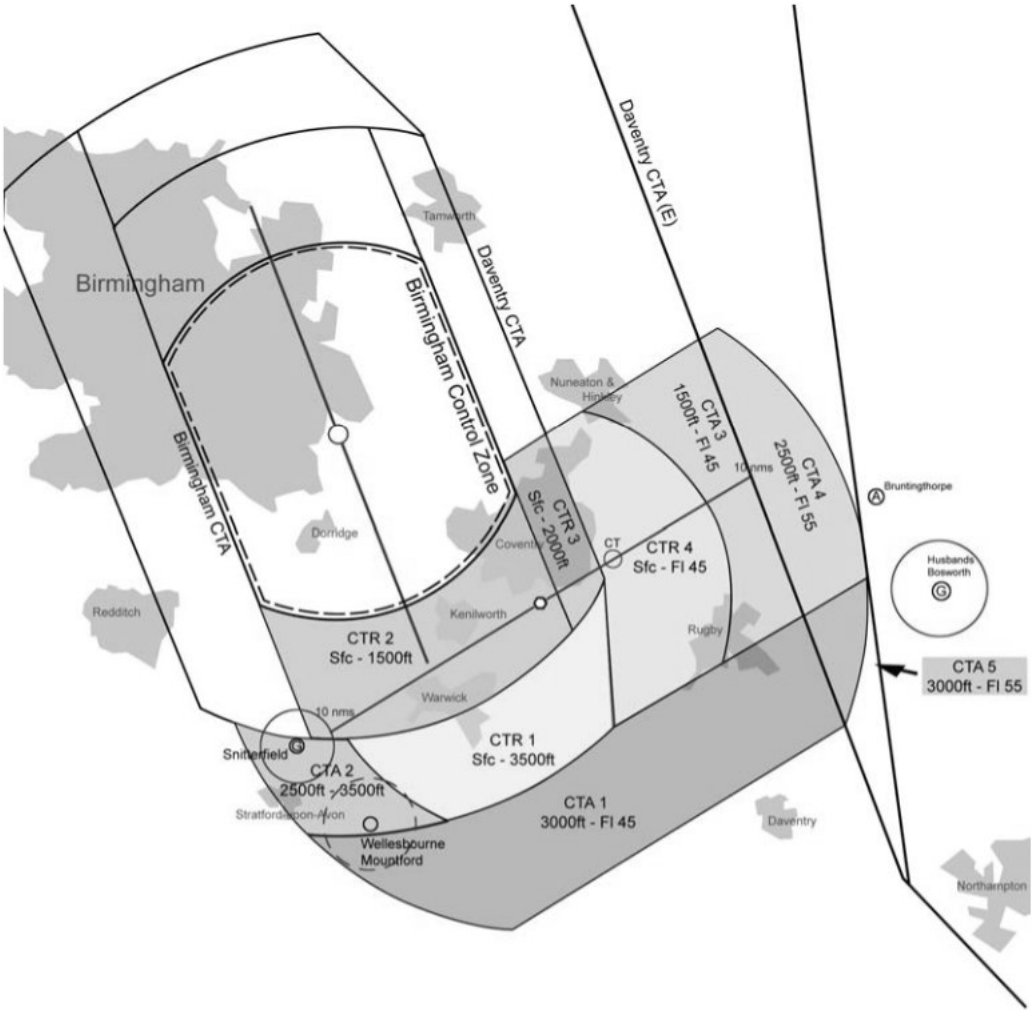
5. DESCRIPTION OF AIRSPACE DESIGN PROPOSALS

5.1 In order to comply with the criteria laid down in CAP724, the initial design proposals have been drawn up reviewing each aspect in detail.

5.2 It is essential that the design phase of the proposed controlled airspace interfaces fully with Birmingham's control zone/control area and does not generate any significant changes to its existing layout. Close liaison has therefore been effected with NATS at Birmingham from an early stage of the design to ensure that there is no consequential impact on the future planned expansion of their own controlled airspace.

5.3 The initial design proposal is shown in diagrammatic format at Table 1 below with a number of aspects covered in this section to be reviewed by DAP in conjunction with the diagrams.

TABLE 1

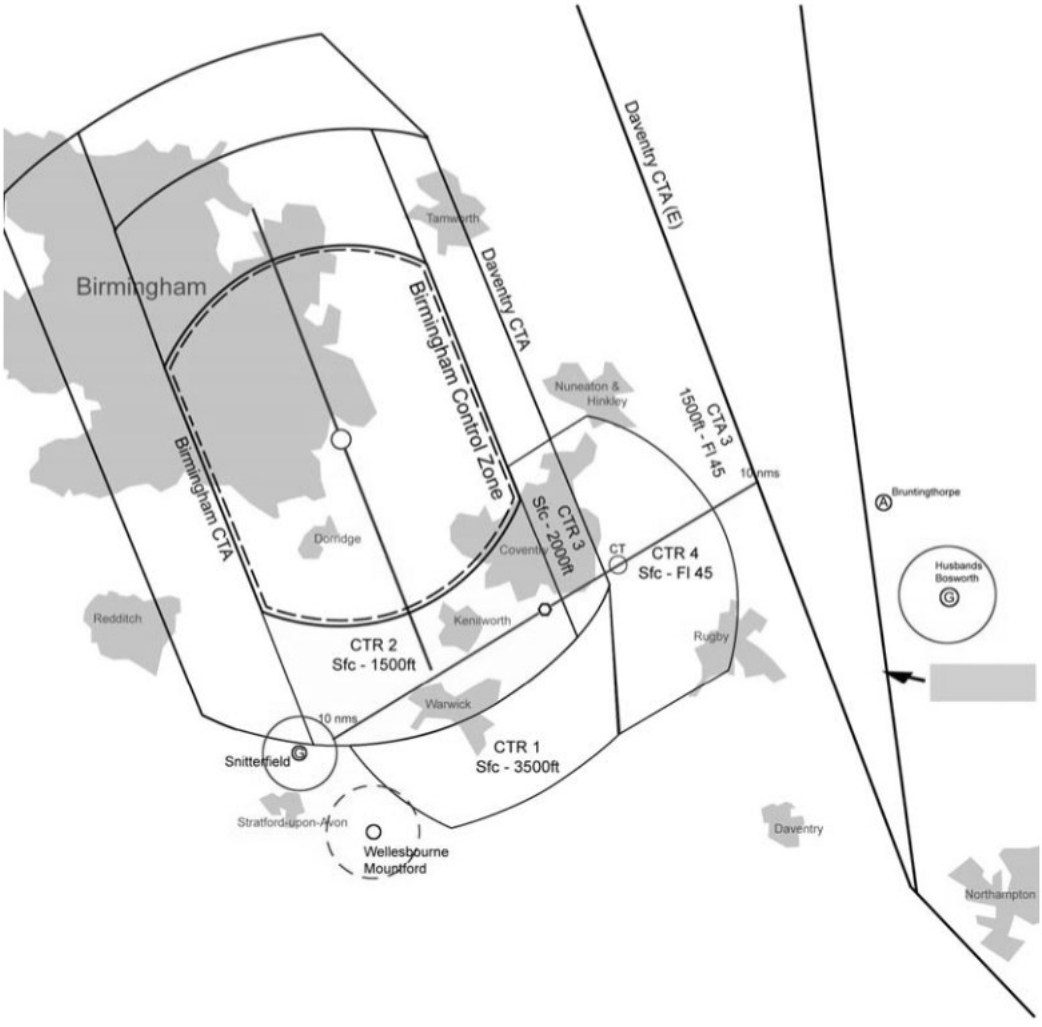


5.4 Control Zone

5.4.1 It is proposed that a control zone with associated control area be established at Coventry Airport to interface fully with the controlled airspace of Birmingham Airport.

5.4.2 The control zone would be centrally aligned along the the runway 23/05 axis from surface level with varying upper altitudes/levels between 1500ft underneath Birmingham's CTA up to a maximum of FL45 to coincide with the base of the current Daventry Control Area (or 4500ft altitude if this is modified by DAP). The control zone is composed of four sub-sections (CTR1,CTR2, etc) as indicated at Table 2 below with each one identifying the varying upper altitudes/levels as follows:-

TABLE 2



- **CTR1-**This has the same shape and dimensions as the southernmost portion of Birmingham's control area and lies below it from surface level up to 3500ft amsl.

- **CTR2-**This has the same shape and dimensions as the inner section of Birmingham's control area and lies below it from surface level up to 1500ft amsl.

- **CTR3-**This has the same shape and dimensions as part of the eastern section of Birmingham's control area although only extends northwards as far as 6nm north of runway 23 approach centreline. Its vertical dimensions are from surface level up to 2000ft amsl.

- **CTR4-**This section of control zone lies just to the east of Birmingham's controlled airspace and abuts the control area boundary. It extends from surface level up to FL45.

5.4.3 The width of the control zone to the east of the airport would equate to 6nm on the north side of runway 23 approach centreline and 6.16nm on the south side. To the north west, the northern boundary of the control zone would be coincidental with the southern boundary of Birmingham's Control Zone whilst the southern boundary would be aligned with the southernmost boundary of Birmingham's Control area.

5.4.4 The eastern boundary of the proposed control zone would be based on an arc of a circle at 8.2nm from the ARP.

5.4.5 The western boundary of the proposed control zone would be based on an arc of a circle at 9.99nm from the ARP until it coincides with the inner southern boundary of the Birmingham CTA thereafter following the footprint of that CTA section. The north east section of the Snitterfield ATZ which falls within the control zone between SFC – 1500ft altitude would be controlled in accordance with specific procedures laid down in a LOA.

5.4.6 The ranges selected for the eastern/western arcs are to provide the requisite protection for inbound aircraft under the following circumstances:-

- When given descent to 1500ft or 1700ft, as appropriate, in conformity with the promulgated Radar Vectoring Area (UK AIP, AD2-EGBE–5–1 refers) by Coventry Radar within the Final Approach Area.

- When following one of the promulgated procedural instrument approach letdowns for runway 23/05 when Coventry Radar is not available or for training purposes.

5.4.7 The control zone is designed to provide the requisite protection to aircraft departing and arriving at Coventry Airport or operating in the visual circuit area using either runway 23 or 05. It also provides the interface with both the proposed Coventry control area as well as the Birmingham controlled airspace immediately adjacent.

5.4.8 Its shape and overall dimensions have been designed taking account of the footprint of Birmingham's existing controlled airspace as far as practicable with known boundaries for the benefit of pilots. In reviewing the design options, a prime objective has been to avoid any infringement of Birmingham's controlled airspace whilst still providing the requisite interface to it.

5.5 Control Area

5.5.1 The control area would comprise one main area of airspace to the south of the control zone covering the primary route structures used by over 90% of passenger ATMs together with small sections/stubs around the periphery of the control zone which will provide the interface between the control zone, the Daventry Control Area and Birmingham's controlled airspace. These will provide the necessary connectivity with the en-route airways structure for inbound/outbound airways traffic.

5.5.2 Where possible, the design philosophy has again made maximum use of existing controlled airspace boundaries as follows:-

- Part of the northern boundary of CTA1 coincides with the southern edge of Birmingham's southernmost control area. In addition, part of the western arc coincides with the ATZ boundary of Wellesbourne Mountford.
- The eastern boundary of CTA3 coincides with the inner boundary of Daventry Control Area.
- The western boundary of CTA4 coincides with the inner boundary of Daventry Control Area.
- A section of the eastern boundary of CTA4 coincides with the outer boundary of Daventry Control Area.
- The western boundary of CTA5 coincides with the inner boundary of Daventry Control Area.

5.3 It is proposed that each area will be numbered (CTA1, CTA2 etc) in a similar format to that of other promulgated control zones/control areas. The general layout is detailed in the following paragraphs.

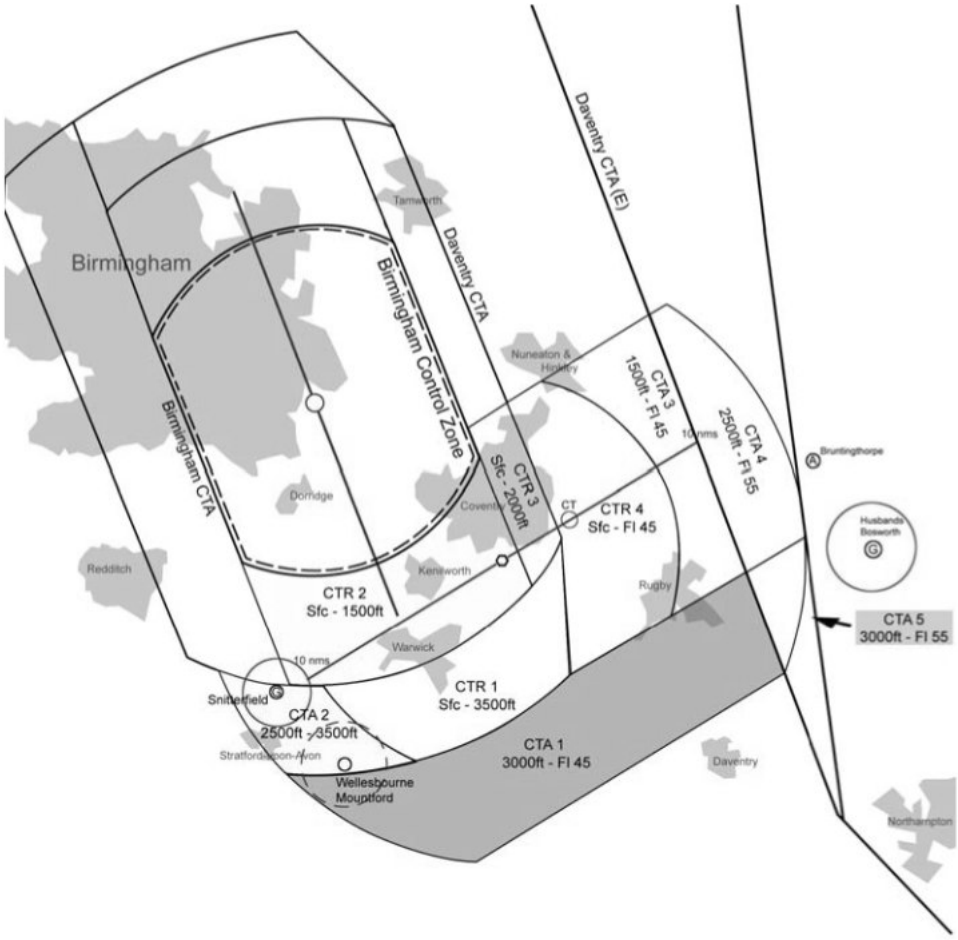
5.5.4 The primary section of control area **(CTA1)** is shown at Table 3 and will be 5.06nm wide (at its widest) on a similar axis to the control zone but will narrow down to 4.65nm where it lies to the south of the southern section of Birmingham's CTA. Its southern boundary will be 16.69nm long and its northern boundary 22.98nm long.

5.5.5 The base altitude will be 3000ft with an upper level of FL45 to coincide with the Daventry Control Area. The justification for this section of control area is to provide the requisite protection to IFR airways traffic to/from the south for either runway by providing the essential connectivity between Coventry's proposed control zone and the base of the airway.

5.5.6 The eastern boundary of the proposed control area will be delineated by an arc of a circle at 13.95nm range from the ARP and would partly overlay the eastern boundary of the Daventry Control Area.

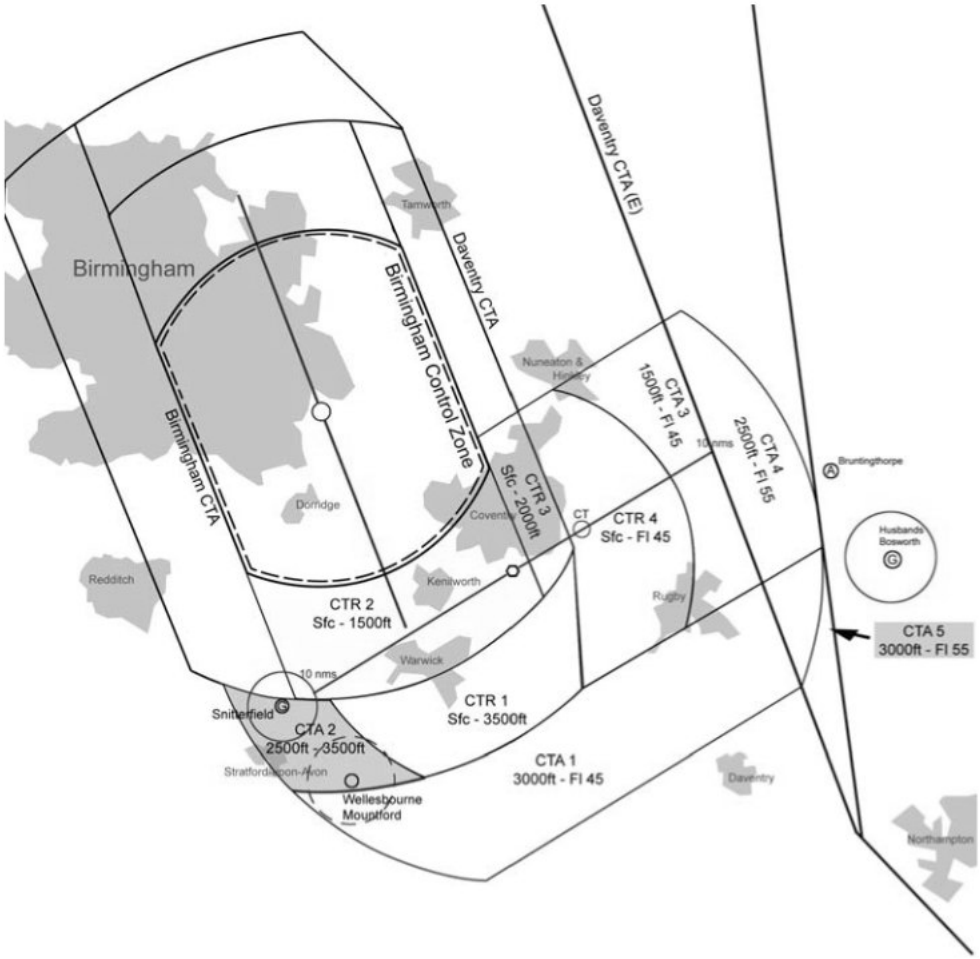
5.5.7 The western boundary would have an arc of similar range joining the south western corner of CTA1 at the village of Radway thence following the arc northwards overlaying the south western boundary of Wellesbourne Mountford ATZ until it joins the south western corner of Birmingham's CTA.

TABLE 3



5.5.8 To the west of the proposed control zone a small section of control area **(CTA2)** as indicated in Table 4 will overlay Snitterfield and Wellesbourne Mountford with a base of 2500ft and upper altitude of 3500ft. Its southern and western boundaries will be 5.89nm long whilst its eastern extremity will be 5.47nm long and its northern edge 4.79nm long. This area would be for the protection of inbound traffic from the south or south west on runway 05 at Coventry. However, when runway 23 is in use, this area of airspace could be delegated to the above airfields provided this did not conflict with any Letter of Agreement between Birmingham and the said two airfields. Such an arrangement would also demonstrate a flexible use of that airspace.

TABLE 4

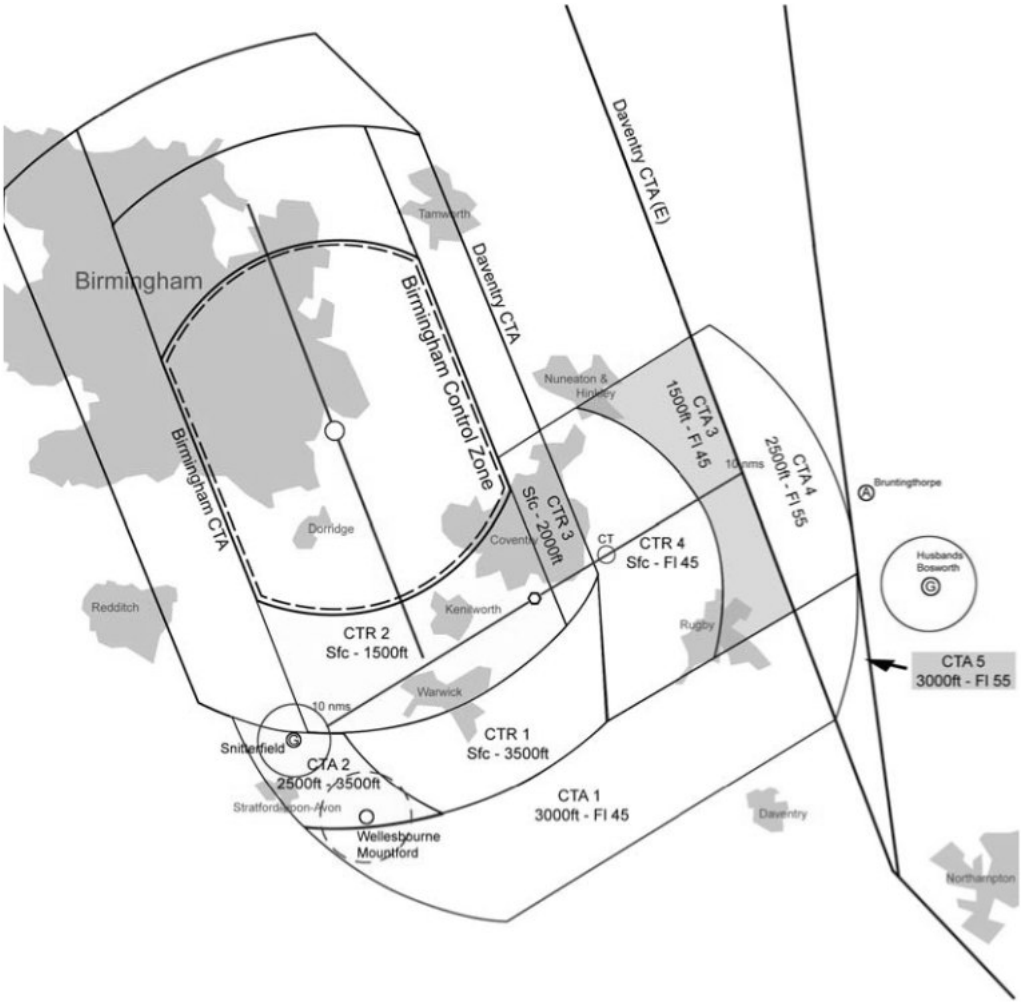


5.5.9 To the immediate east of the control zone will lie a section of control area designated **CTA3** bounded by the extended lines of the northern and southern edges of the control zone until they reach the inner boundary line of the Daventry Control Area. This section is indicated at Table 5.

5.5.10 The base in this section would be 1500ft with an upper level of FL45 to coincide with the base of the Daventry Control Area. It will extend to 6nm on the north side of runway 23 centreline and 6.2nm on the southern side. It will be 5.47nm wide along its northern edge and 3.83nm along its southern edge.

5.5.11 The justification for CTA3 is to provide the required protection primarily to inbound traffic on runway 23 which is being allocated descent on a right or left base leg prior to joining the final approach track.

TABLE 5

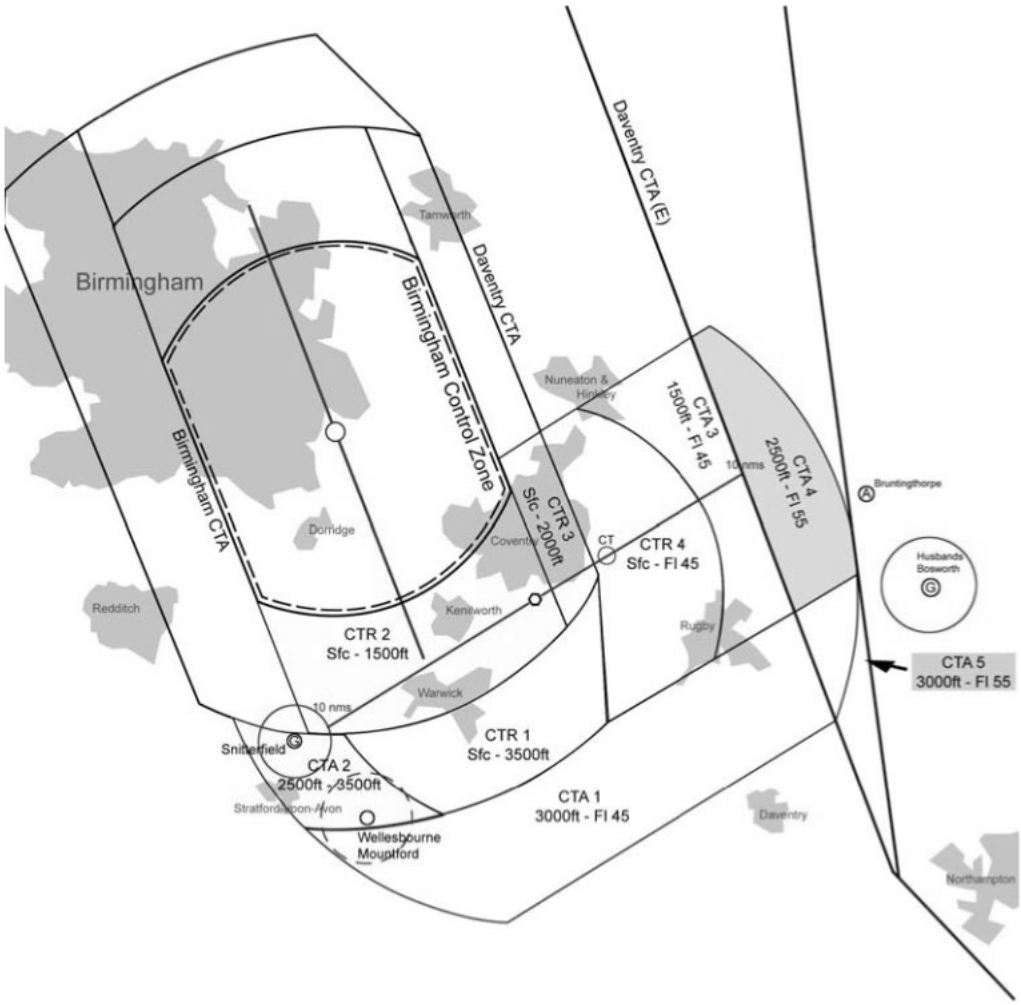


5.5.12 The most easterly section of the control area **(CTA 4)** would cover the area between the inner boundary line of the Daventry Control Area and the outer arc detailed at para 5.5.5. The base of CTA 4 would be 2500ft with an upper level of FL55 with the latter level to coincide with the base of the Daventry Control Area in that area. This section is indicated at Table 6 with its dimensions covering 6nm on the north side of runway 23 centreline and 6.2nm on the south side extending to a maximum of 3.42nm width on the extended runway centreline.

5.5.13 The justification for CTA 4 is primarily for the protection of inbound traffic on intermediate approach for runway 23 from LIC or DTY and, in particular, if such traffic is in a radar sequence. It also enhances connectivity with the adjacent airways system.

5.5.14 This is a particularly important area with 70% of inbound traffic using runway 23 as the preferential runway in use and in line with the prevailing wind.

TABLE 6



5.5.15 The designated **CTA5** section is indicated at Table 7 and lies at the south east corner of the proposed control area. The base of CTA 5 would be 3000ft with an upper level of FL55 which would also coincide with the base of the Daventry Control Area. It is 4.79nm long and is 3nm at its widest where it abuts the southern edge of CTA4.

5.5.16 The justification for CTA5 is primarily for the protection of inbound traffic on intermediate approach for runway 23 from DTY and, in particular, if such traffic is in a radar sequence. It also enhances connectivity with the adjacent airways system.

TABLE 7

5.5.17 Consideration has also been given to a northerly section of control area to the north of the control zone east of Birmingham's controlled airspace. This was to cater for slow climbing departures from runway 05 (e.g. SH360s) which intend to route via Lichfield (or abeam). However, in view of the low traffic levels of these aircraft types and the revised runway 05 NPR which requires traffic to climb on runway heading until crossing the CT NDB at or above 1500ft, it has been decided that this additional airspace will not be pursued. This will require traffic to climb a further 3000ft over a range of 6 track miles in order to retain the protection of controlled airspace.

SECTION 6

6. OPERATIONAL IMPACT

6.1 General

6.1.1 It is recognised fully that the introduction of controlled airspace at Coventry will have a significant impact on all airspace users in the area. This will not only include traffic using Coventry Airport itself but also flights using adjacent airfields outside the proposed control zone/control area but in close proximity to it.

6.1.2 A number of pilots operating from adjacent airfields may also need to modify their general area of operations dependent on the nature of their flying activities e.g. light aircraft doing aerobatics, some gliding activities, etc. Coventry ATC will actively assist in providing advice and guidance on alternative locations as well as providing a RAS/RIS or FIS if requested.

6.1.3 It is also appreciated that military pilots operating in the Low Flying System will have to take account of the proposed controlled airspace albeit it is emphasised that this does not prevent pilots seeking ATC clearance to fly through it or to operate within it.

6.1.4 The most significant impact operationally will be the safety benefit accruing to air transport movements at Coventry through creation of a known traffic environment which allows for the integration of IFR and VFR traffic in Class D airspace. This is particularly important bearing in mind the increasing traffic levels of air transport movements and the fact that it is anticipated that there will be an increase in controller workload because of the higher number of VFR flights in contact with Coventry ATC as a consequence of the new controlled airspace.

6.2 Impact on IFR Traffic

6.2.1 IFR flights operating to/from Coventry Airport will have the maximum protection of controlled airspace if the proposals are approved particularly under the following circumstances:-

- Departures from take–off through their initial climb in Class D airspace into Class A controlled airspace within the airways system.

- Arrivals descending from the airways system through the Class D Coventry control area (and possibly Birmingham control area) into the Coventry control zone until touchdown.

6.2.2 There will be minor changes only to the NPRs and associated standard departure routes from runways 23/05 at Coventry although departures will now gain the benefit of a radar control service immediately after take-off.

6.2.3 Similarly, arriving IFR traffic from the airways system will have the continuity of a radar control service until touchdown. The significant benefit for inbound airways traffic from the south is that, whenever the traffic situation permits, it can be given descent direct on track towards the CT NDB (or on DAVENTRY R350) with a radar handover to Coventry Radar for vectoring on to a left base leg for runway 23 whilst remaining in controlled airspace throughout. Such an arrangement has no effect on Birmingham's airspace capacity and has significant environmental benefits.

6.2.4 For IFR transit traffic, the only change will in effect be the requirement to obtain an ATC clearance from Coventry Approach prior to the controlled airspace boundary and the need to comply with IFR requirements and ATC instructions during the transit. Once identified, Coventry ATC will provide a RAS/RIS in Class G airspace with a radar control service within their controlled airspace.

6.3 Impact on VFR Traffic

6.3.1 The introduction of Class D controlled airspace at Coventry will necessitate changes to the conduct of VFR flights operating to/from Coventry Airport as well as for transit traffic.

6.3.2 With regard to outbound VFR traffic, it is envisaged that the majority will be issued with a departure clearance to maintain VFR not above a specific altitude until reaching the control zone boundary with the most direct track allocated in accordance with their requirements. Ideally, this should be via one of the promulgated Visual Reference Points (VRPs) although this will not be mandatory.

6.3.3. It is anticipated that the majority of flying training will continue to be to the east and south east of the airport with pilots wishing to leave controlled airspace prior to conducting their training exercises.

6.3.4 Similarly, inbound VFR traffic will be issued with an ATC clearance to enter controlled airspace maintaining VFR not above a specified altitude with a request to report crossing the control zone boundary for joining instructions. Ideally, their route should be via or abeam one of the promulgated VRPs although again this will not be a mandatory requirement.

6.3.5 Joining instructions will continue to be allocated for a visual circuit to the south side of the airport to avoid overflight of Coventry city and to segregate Coventry traffic from Birmingham's traffic.

6.3.6 For VFR transit traffic, there will be a similar requirement to that laid down for IFR transit traffic with an ATC clearance to be obtained from Coventry Approach prior to crossing the controlled airspace boundary and the need to comply with VFR requirements during the transit. Coventry ATC will normally issue an ATC clearance to transit maintaining VFR at a specific altitude with pilots requiring to notify ATC if at any time they cannot maintain VMC conditions in compliance with the VFR criteria.

6.3.7 It will also be necessary to introduce Special VFR procedures coincidentally with the promulgation of the controlled airspace to cover operations in marginal weather conditions or at night by flights unable to comply with IFR. This is an important aspect bearing in mind the change in visibility criteria applicable to aircraft operating at 140kts or less below 3000ft amsl within Class D airspace.

6.3.8 There will not be a VFR entry/exit lane established initially but this will be reviewed again after a period of at least twelve months' operation. One of the major factors for this decision concerns the fact that the majority of aircraft within the proposed controlled airspace will all be on routes to the south of the extended runway centrelines with the vast majority of IFR departure routes all routeing south or south east.

6.4 Impact on Procedures

6.4.1 There will only be minor changes to the procedures for IFR flights with the revisions to NPRs and standard outbound routes to be promulgated in the UK AIP.

6.4.2 For inbound IFR traffic from the south via the airways system, reference will be made to the fact that, whenever traffic levels permit, descent will be given direct on track towards CT NDB (or ideally DTY R350) with transfer to Coventry Radar for radar vectoring to runway 23.

6.4.3 When runway 05 is in use at Coventry, Birmingham may require inbound traffic to follow the Birmingham STAR initially with a transfer to Coventry Radar when clear of Birmingham traffic.

6.4.4 For VFR traffic, the primary change will involve the requirement for an ATC clearance to enter or leave the control zone/control area as well as the introduction of Special VFR procedures for those aircraft unable to comply with IFR in marginal weather conditions or at night.

6.4.5 There are no changes anticipated to the published CT NDB location or holding pattern nor to the procedural instrument approaches which will now be contained within the new controlled airspace design.

6.4.6 Coventry Airport authority have decided not to introduce SIDS/STARS as yet but will promulgate their revised NPRs and standard outbound/inbound procedures in the UK AIP.

6.4.7 For flights operating within the Coventry Class D airspace, Coventry Approach will provide the following:-

- Standard separation between all IFR flights, between IFR and Special VFR flights and between one Special VFR and another Special VFR flight.

- Control of all VFR flights, although responsibility may be delegated to Aerodrome Control.

6.4.8 The Approach Control and Approach Radar Control functions will be combined and will be radar orientated although it will be necessary to ensure that standard flight progress strip marking is used so that reversion to a procedural system can be effected should this be necessary.

6.4.9 Take-off clearance will not be given to departing flights by Coventry Aerodrome Control until Coventry Approach have authorised its departure and any specific instructions have been passed to the aircraft. In the case of IFR departures via the airways system, coordination will also be required with Birmingham ATC prior to departure.

6.5 Additional Services

6.5.1 With the combined Approach Control and Approach Radar Unit, there will also be an opportunity to provide additional ATC services outside the proposed controlled airspace.

6.5.2 These services will be of particular benefit as it is intended to provide a Radar Advisory Service (RAS) or Radar Information Service (RIS) to pilots operating in Class G airspace who request such a service particularly if they intend to transit Coventry's controlled airspace.

6.5.3 It is also anticipated that an application may be submitted at a later date to the LARS Working Group, DAP, for the provision of a Lower Airspace Radar Service. This would take account of the adjacent LARS coverage and hours of operation of RAF Cottesmore to the east and RAF Shawbury to the west.

6.5.4 There appears to be a gap in the general coverage by LARS Units particularly to the north of Coventry Airport.

6.5.5 The revised ATC arrangements are also intended to ensure that every possible effort can be given to integrate VFR/IFR traffic both within Coventry's airspace as well as in Class G airspace in the vicinity of the proposed control zone/area. This should make requests for a transit of this airspace easier to accommodate.

6.5.6 It should also be noted that Coventry ATC will use every endeavour to release CTA2 and CTAs 4 and 5 under the concept of Flexible Use of Airspace (FUA) dependent on the runway in use.

6.6 Impact on Other Airfields

6.6.1 Birmingham Airport

As previously indicated, there should be significant benefits to Birmingham Airport as a consequence of the introduction of controlled airspace at Coventry because of the increasing number of IFR flights which will not require to enter their airspace and therefore not generate any impact on their airspace capacity. Consultations have taken place with NATS at BIA who have been supportive of the case for controlled airspace.

6.6.2 Wellesbourne Mountford

As Wellesbourne Mountford lies just outside the south west corner of the proposed Coventry control zone and below its control area (CTA2) where the base is proposed at 2500ft altitude, there could be some impact on GA operations there.

However, it already lies below the south west corner of Birmingham's control area where the base altitude is currently 3500ft so there will already be a need for coordination with Birmingham at times.

It is proposed that CTA2 will only be activated when runway 05 is in use at Coventry thus allowing the status quo to exist for approximately 70% of the time in accordance with the concept of FUA.

A Letter of Agreement will, however, be drawn up which provides detailed coordination procedures in order to provide maximum flexibility to GA operations wishing to route north east or east through Coventry's controlled airspace.

6.6.3 Snitterfield

As Snitterfield gliding site lies on the runway 05 extended centreline for Coventry at a range of 11.9nm from touchdown, it will again be necessary to draw up a Letter of Agreement.

The site is also below CTA2 with its extreme north east corner lying just inside the proposed Coventry control zone.

However, it also partly lies below three sections of Birmingham's control area where the base altitudes are 2500ft to the immediate north west of Snitterfield, 1500ft to the north east and 3500ft to the south east.

It is understood that Birmingham permit Snitterfield to operate within the footprint of their ATZ up to 3500ft altitude when runway 15 is in use. It would be Coventry's intention to allow the same arrangement to stand when runway 23 is in use at Coventry as well.

Restrictions will only be placed on Snitterfield operations when runway 05 is in use.

6.6.4 Bruntingthorpe

Bruntingthorpe lies approximately 15nm east north east of Coventry Airport and will be outside the proposed Coventry controlled airspace although will only be 1nm from the eastern edge of CTA4 where the base altitude is 2500ft.

If any GA traffic from Bruntingthorpe wishes to enter the Coventry control area, it is anticipated that prior ATC clearance can be obtained from Coventry Approach prior to departure or, alternatively, overhead Bruntingthorpe.

6.6.5 Husbands Bosworth

As Husbands Bosworth is sited approximately 17.1nm east north east of Coventry Airport, it lies outside the proposed Coventry controlled airspace at a range of 2.75nm north east of CTA5 where the base altitude will be 3000ft.

Additionally, at just over 3nm to its north west will be CTA4 with its base altitude at 2500ft.

With intense gliding operations at this airfield, there could be an operational impact where gliders wish to climb on a thermal to the west or north west of the site because of the proximity of controlled airspace.

However, it may be possible to issue them with a clearance under FUA concepts into CTAs 4 and 5 at times when runway 05 is in use at Coventry. This will apply by day in VMC and with a review period after six months of operation of the new controlled airspace. These arrangements will be subject to a Letter of Agreement being drawn up and agreed.

6.6.6 Helicopter Pads inside Coventry Control Zone

There are three identified helicopter alighting areas designated within the proposed Coventry control zone. These are sited on the enclosed charts and are located as follows:-

- One sited 3.69nm north east of the airport.
- The other two on either side of runway 05 approach centreline at ranges of 5.2nm and 5.88nm respectively.

For inbound helicopters to the above sites, an ATC clearance into the control zone will be issued as normal by Coventry Approach consistent with a direct route to the alighting area requested. Caution will need to be exercised where it is necessary for a helicopter to cross an approach or departure runway centreline.

For outbound helicopters from these sites, pilots will be requested to contact Coventry Approach on R/T just prior to lift-off for an ATC clearance. If two-way contact cannot be established, then pilots will be expected to lift-off directly overhead the helicopter pad to 300ft agl and establish contact with Coventry Approach for outward clearance and further climb.

6.6.7 Other Airfields

There are a number of other airfields and flying sites detailed within a 30nm radius of Coventry Airport with all of them notified of the controlled airspace proposals.

If the application proves successful, then Coventry ATS management will ensure that they are all notified of the implementation date in advance and advised of the ATC procedures applicable in order to obtain ATC clearance into or through the control zone/control area.

SECTION 7

7. DAP REGULATORY REQUIREMENTS – AIRSPACE DESIGN

7.1 In preparing the airspace design proposals for Coventry Airport, cognisance has been taken of the regulatory requirements in order to comply with CAP724.

7.2 As a consequence, there are a number of aspects covered in this section for consideration by DAP in conjunction with the design proposals.

7.3 Airspace Structure

7.3.1 The airspace structure for Coventry Airport has been designed to take account of horizontal and vertical flight activity in both a radar and non-radar environment in accordance with current regulations.

7.3.2 It has also been designed to interface with Birmingham International Airport's (BIA's) controlled airspace taking account of the proposed modifications planned by NATS management. It does not, however, generate any changes to its existing layout.

7.3.3 It also abuts but does not overlap the Daventry Control Area in order to ensure the continuity of controlled airspace coverage for arriving/departing IFR flights to/from Coventry Airport via the airways system.

7.3.4 It is also considered that the design utilises the minimum possible volume of controlled airspace consistent with safe and orderly operations at Coventry Airport taking account of traffic and environmental aspects.

7.4 Air Traffic Management

7.4.1 The air traffic management system has been developed taking full account of the complexity of ATC operations arising as a consequence of the differing runway configurations at Coventry Airport and BIA coupled with increasing traffic levels at both airports.

7.4.2 This system has also been developed with close coordination maintained with NATS management at BIA with the following objectives in mind:-

- To minimise the need for Coventry IFR traffic to enter Birmingham's controlled airspace to/from the airways system.

- To maximise the use of Coventry Radar particularly for inbound airways traffic to Coventry with the intention of avoiding the requirement to follow the full STAR within BIA's controlled airspace.

- To take positive steps to reduce the present level of coordination requirement with NATS, BIA, by means of enhanced procedures and/or systems.

7.4.3 In addition, there have been a number of meetings between the two ATSUs since August 2004, with the primary objective of drafting a new Letter of Agreement based on a NATS Discussion Paper tabled on 31st July 2004. This was achieved at the end of March 2005 with approval given by SRG to this LOA.

7.4.4 There has also been close coordination maintained with the LTCC to ensure that the optimum routes for inbound/outbound traffic to/from Coventry can be utilised whilst maximising the benefits accruing from the additional controlled airspace.

7.5 Airspace Classification

7.5.1 The proposed airspace classification D will allow ATC to integrate the majority of airspace users wishing to operate under VFR conditions within the controlled airspace and still provide the required protection to IFR flights.

7.5.2 It will, of course, also generate a known traffic environment covering all types of weather conditions with ATC also able to provide Special VFR flights with a clearance into/out of the control zone/area when necessary.

7.6 Unauthorised Infringements – Safeguards

7.6.1 In order to minimise the possibility of unauthorised infringements of the proposed Coventry controlled airspace, every effort has been taken to design the new boundaries where there are a number of visual references which can be utilised by VFR traffic operating in the area.

7.6.2 In addition, every encouragement will be given during the informal consultation to pilots at local airfields to contact Coventry Approach if planning to operate within a 20nm radius of the airport. This arrangement will enhance the creation of a known traffic environment and will also assist Coventry controllers in identifying traffic which may be operating in close proximity to the control zone/area.

7.6.3 The dimensions of the proposed control zone/area also coincide where possible with existing boundary points of the BIA control zone/area which have been established for some considerable time and will therefore be known to pilots.

7.6.4 If approved, the promulgation process of the new Coventry controlled airspace will be widely circulated particularly to local airfields, clubs and other aviation organisations in the local area in an effort to minimise the potential for an unauthorised infringement.

7.7 Terrain Clearance

7.7.1 The introduction of controlled airspace at Coventry will not require any changes to the existing Radar Vectoring Area (RVA) as promulgated in the UK AIP-AD2-EGBE-5-1. The minimum altitudes shown on this plan ensure terrain clearance in conformity with Rule 29 of the Rules of the Air Regulations in respect of obstacles within the RVA.

7.7.2 Within the Coventry RVA, the minimum initial altitude to be allocated by Coventry Radar is 1900ft except within a 3nm arc of Rugby (masts at 1188ft amsl) where the minimum altitude is 2200ft.

7.7.3 Subsequent descent can be given by Coventry Radar for inbounds to runway 23 to an altitude of 1700ft within the final approach area or on a 40° closing heading and to 1500ft within the south west sector for runway 05.

7.7.4 The transition altitudes at Coventry will remain at 4000ft unless a policy change is initiated by DAP for both Birmingham and Coventry.

7.8 Departure/Arrival Routes

7.8.1 Whilst reviewing the standard departure/arrival routes for Coventry, it has also been necessary to undertake modifications to the Noise Preferential Routes (NPRs) associated with departures.

7.8.2 Indeed, DAP made reference to the need for such a review in their correspondence of 18th February 2004, to Coventry where they stated that the existing NPRs at that time did not reflect their understanding of how it is envisaged that Coventry departures would need to be integrated into Birmingham controlled airspace. DAP went on to emphasise that a re-assessment of these routes needed to be undertaken and resourced by Coventry.

7.8.3 This has now been completed as a consequence of which revised NPRs linked with revised standard departure routes will form part of the planned Coventry proposals to DAP.

7.8.4 These revisions have been agreed with NATS management at BIA and are also acceptable to LTCC management. They take cognisance of the operational ATC aspects as well as mitigating the environmental effects as far as practicable.

7.8.5 At this stage, it is not intended to introduce SIDs/STARS at Coventry coincidental with the introduction of controlled airspace but this may take place at a future date in conjunction with DAP.

7.8.6 The main IFR arrival routes via the airways system will generally cover the following:-

From the North

- Aircraft will route via CHASE with radar vectoring by Birmingham Radar through their controlled airspace and handover to Coventry Radar when clear of Birmingham traffic for final sequencing to the runway in use.

From the South

There will be two alternatives:-

- Routeing direct to the CT NDB (or ideally on DTY R350) with a radar handover to Coventry Radar before reaching the CT so that traffic can be vectored direct on to left base for runway 23.

- Initially follow the Birmingham STAR via HON-EBONY-GROVE with radar vectoring by Birmingham Radar and handover to Coventry Radar as soon as practicable to either runway in use.

NOTE: For runway 05, it may be possible to review the route direct towards CT NDB with a handover to Coventry Radar before reaching the CT so that traffic can be vectored right hand downwind for runway 05. This will depend on the Birmingham traffic situation.

7.9 R/T Coverage

7.9.1 The existing VHF promulgated frequencies at Coventry have the requisite Designated Operational Coverage (DOC) to cover the proposed controlled airspace as well as the provision of ATC advisory services in Class G airspace beyond it.

7.10 Integration with Birmingham Controlled Airspace

7.10.1 Paragraphs 7.3 and 7.4 of this section outline the design parameters of the proposed Coventry controlled airspace in relation to that of Birmingham ATSU and the detailed dialogue undertaken between the respective ATSUs.

7.10.2 As a consequence, the new Letter of Agreement has been signed by ATS management representatives from both ATSUs and became effective from 1st August 2005 on completion of controller training.

7.11 Links with the Airways Structure

7.11.1 Section 5, para 5.5, laid down the details of the differing sections of the proposed Coventry control area (CTA 1 to 5) which will provide the essential connectivity between the proposed Coventry control zone and the en-route airways system.

7.11.2 These are considered to be sufficient to cater for the present and immediate future needs of IFR traffic using Coventry Airport.

7.12 Special VFR Procedures

7.12.1 It will be necessary to introduce Special VFR procedures coincidentally with the promulgation of the controlled airspace to cover operations in marginal weather conditions or at night by flights unable to comply fully with IFR.

7.12.2 Other than in exceptional circumstances, SVFR clearances will only be issued to flights with a maximum all-up weight of 5700kgs or below. Such clearances will only be issued when traffic conditions permit and will not hinder or prejudice IFR flights.

7.12.3 Standard separation will be provided between SVFR flights and other SVFR flights as well as IFR traffic within the controlled airspace.

7.12.4 During daylight hours, whenever the airfield met visibility is reported as less than 5km, all arriving/departing VFR traffic will be notified of the latest met visibility and pilots asked if they require an IFR or SVFR clearance.

7.12.5 During the period of official night, any arriving/departing traffic which has not indicated what type of clearance is required will be asked whether they require an IFR or SVFR clearance.

7.12.6 SVFR clearance will not, however, be available to departing fixed wing aircraft whenever the met visibility is 1800m or less and/or the cloud ceiling is below 600ft.

7.13 Visual Reference Points

7.13.1 At present, the following Visual Reference Points are promulgated for use by aerodrome and transit traffic as follows:-

- Bitteswell Disused AD – 522728N 0011447 W
- Cement Works – 521621N 0012304W
- Draycott Water – 521934N0011935W
- Nuneaton Disused AD – 523354N 0012653W

The above sites are highlighted on the accompanying plan.

7.13.2 It is proposed that all of the above VRPs will be retained as they are close to the boundary of the proposed Coventry control zone and therefore of mutual benefit both to arriving and departing VFR traffic.

7.13.3 It is, however, envisaged that two additional VRPs should be considered to facilitate the effective integration of VFR traffic within the proposed controlled airspace with IFR flights. These proposed additional VRPs are detailed below:-

- M1/M69 junction (SW of Leicester) –523560N 0011130W

- Gaydon Vehicle Proving Ground – 521100N 0013000W

7.14 Control of Traffic

7.14.1 The procedures are detailed in this report for the control of IFR, Special VFR and VFR flights in the proposed Coventry control zone/control area.

7.14.2 In addition, arrangements are detailed in respect of other GA flights which plan to operate from airfields in close proximity to the proposed controlled airspace.

7.14.3 With the planned implementation of a combined Approach/Approach Radar service, this will ensure that the maximum availability of radar control services is provided to IFR traffic

operating within Coventry’s controlled airspace.

SECTION 8

8. ENVIRONMENTAL IMPACT

8.1 Introduction

8.1.1 It is recognised that an essential aspect of the formal application for controlled airspace at Coventry Airport involves a study of the environmental impact of the airspace changes proposed.

8.1.2 In reviewing this aspect, reference has been made to the DfT guidance contained in the document "Guidance to the CAA on Environmental Objectives relating to the Exercise of its Air Navigation Functions".

8.1.3 In addition, consideration has been given to the legislative requirements of the Town and Country Planning Regulations under Schedule 2 (which would be applicable to Coventry Airport). However, it is recognised that a full Environmental Impact Assessment (EIA) may not be necessary although Scott Wilson Kirkpatrick produced an Environmental Statement during 2004 and a Supplemental ES in 2005 to cover the proposed new passenger Terminal which will permit Coventry Airport to expand to its planned limit of two million passengers which is anticipated in 2014.

8.1.4 The above documentation also indicates that DAP has a responsibility to assess, mitigate and minimise the detrimental environmental impact of any airspace change. As a consequence, the scoping undertaken for this limited environmental impact assessment covers the following topics:-

- Engine exhaust emissions/air quality
- Changes in flight path routes (revised Noise Preferential Routes)
- Aircraft noise
- Fuel burn
- Visual intrusion

8.1.5 In reviewing the above aspects, emphasis has been placed on the need for the EIA to achieve the following:-

- Prediction of the environmental effects of the introduction of controlled airspace.
- Identification of the means of reducing the adverse effects through mitigation measures.
- Evaluation of the residual effects after mitigation.

8.1.6 Further information on the above topics can be provided by ATC management at Coventry Airport but reference is detailed below to Noise Preferential Routes.

8.2 Noise Preferential Routes

8.2.1 The present Noise Preferential Routes (NPRs) are promulgated in the UK Air Pilot (AD2-EGBE-1-8) with their associated Standard Departure Routes for airways departures at AD-EGBE-1-9. As part of the study, a full review has taken place taking account of the operational ATC aspects particularly in respect of departures from runway 23 at Coventry and their impact on Birmingham traffic.

8.2.2 In reviewing revised proposals, cognisance has also been taken of the following environmental aspects:-

- Avoidance of built-up residential areas as far as practicable in order to affect the minimum number of people on the ground.
- Concentration of departing traffic on the least number of routes possible.
- A route which enables early acquisition of an en-route navigational facility in order to obtain better accuracy in track-keeping and subsequent monitoring thereof.

8.2.3 It would therefore be of significant operational benefit if runway 23 departures on a route south to Compton, Cowley or Westcott were turned as soon as practicable after passing 500ft aal on to their required track. By this means, Coventry departures would clear the Birmingham runway 33 extended centreline more quickly thus enabling an earlier climb to be given whilst Birmingham inbounds for runway 33 could be given further descent on final approach slightly earlier.

8.2.4 To take account of a route avoiding noise sensitive areas, the following aspects are incorporated in both the existing and proposed draft NPRs:-

- An early left turnout from 23 on to a specified track at 500ft aal avoids Stoneleigh; and
- An initial climbout from runway 05 to the CT NDB before turning right should avoid Binley Woods.

8.2.5 The proposed draft NPRs are designed taking into account published criteria for the design of area navigation procedures in order to comply with CAA requirements, and have also been designed to avoid the areas detailed below (Annex C refers) as far as practicable. They are shown within swathes 1500m wide although controllers are still able to use the full airspace available to them for departure/arrival routes.

- Runway 23 departures to be on a route to pass to the east of Warwick and Royal Leamington Spa;
- Runway 05 departures to be on a route to pass just west of Rugby when establishing on a southerly track where possible; and

- Runway 05 departures turning north to be on a route to pass to the east of the city of Coventry.

8.2.6 The revised draft NPRs are as follows:-

- The Noise Preferential and Departure Routes specified below are compatible with ATC requirements and shall apply in both VMC and IMC. The tracks are to be flown by all departing jet aircraft and by all other departing aircraft of more than 5700kgs MTWA unless otherwise instructed by ATC or unless deviations are required in the interests of safety. The use of the route is supplementary to noise abatement take-off techniques. After take-off, pilots should ensure that they are at a minimum height of 500ft aal before initiating any turn;

- Departing aircraft using the aerodrome shall, after take-off (or go-around), as soon as safety permits, attain a rate of climb of at least 500ft per minute at power settings which ensure progressively decreasing noise levels at points under the flight path; and

- The crew of any departing aircraft unable to comply with these instructions must pre-notify ATC before start up and request an alternative procedure.

Runway 23 – All Routes. Climb straight ahead. At 500ft aal, turn left on track.

Runway 05 – All Routes. Climb on track to CT NDB(L) to cross it at or above 1500ft aal, then turn on track.

8.2.7 The associated Standard Departure Routes are also being modified for operational and environmental reasons but, as these are still being negotiated through the relevant ATC organisations, further information will be notified in due course.

APD

ANNEXES

ANNEXE A

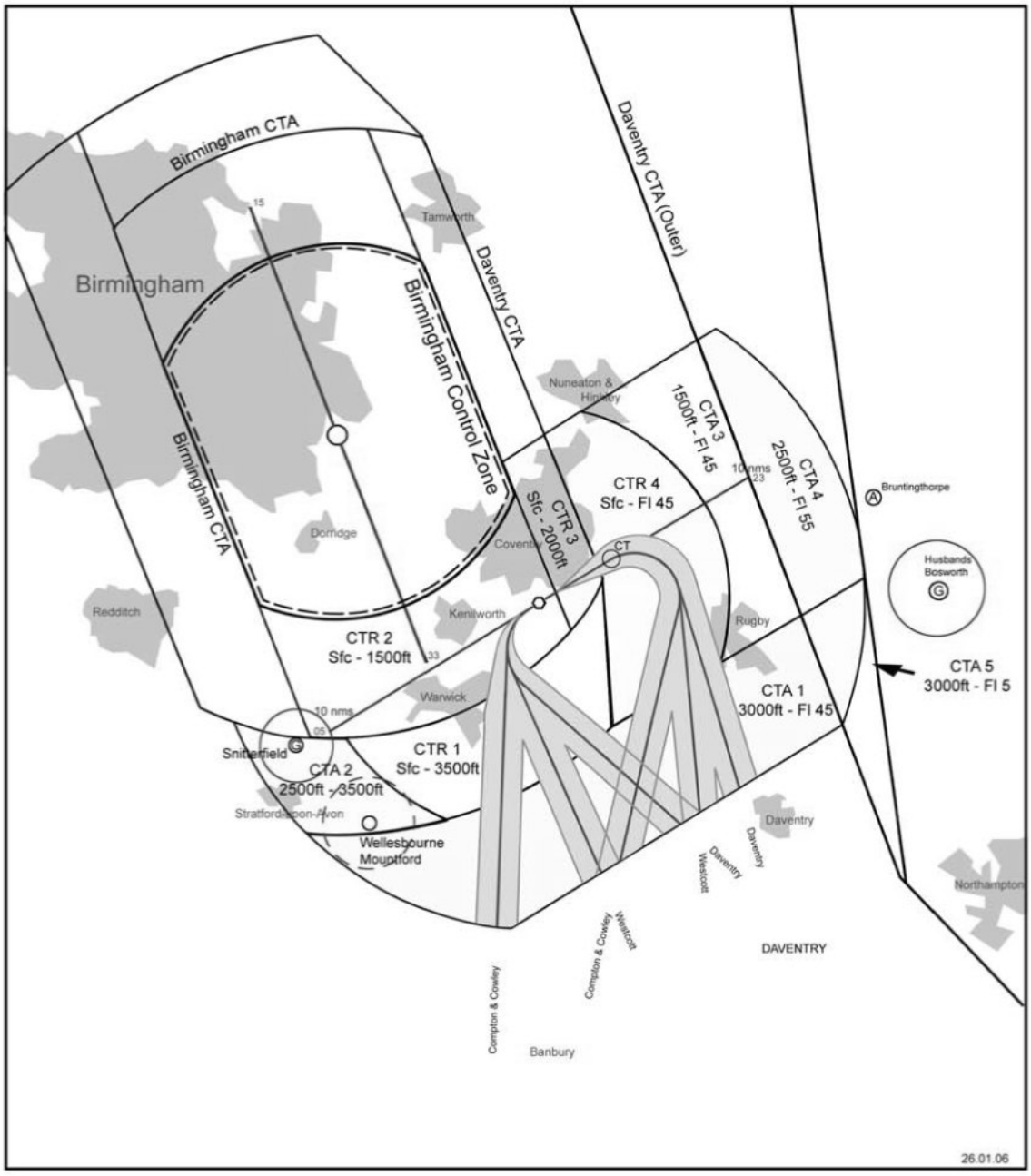
Runway Configuration

ANNEXE B

DATE	INCIDENT	TYPE	DETAILS
06/07/03	Airprox	Learjet 45	NE Coventry whilst being vectored for ILS Rw 23
12/05/04	Airprox	B735	SW Coventry on leaving BB CAS whilst being vectored for ILS Rw 05
18/07/04	Traffic Conflict	B737	Departing B737 conflicted with DC3 traffic SW Coventry
16/07/04	Handling	L188	No release from BB radar so L188 given local release to remain outside BB CAS
21/08/04	Traffic Conflict	B735	B735 vectored for ILS Rw 23 in conflict with unknown traffic crossing 23 approach
01/09/04	TCAS RA	B735	B735 vectored for ILS Rw23 in conflict with unknown traffic 10 nm final
28/09/04	Airspace Infringement	Unknown	Traffic observed SW Coventry in CAS-T, Royal Flight delayed
15/11/04	Traffic Conflict	B735	Unknown traffic SW Coventry caused delay to departing B735, which was mishandled as result
27/11/04	Poor Handling	B735	B735 inbound Rw 23 mishandled due unknown conflicting traffic NE Coventry
28/12/04	Level Bust	AN72	On change of ATCO AN72 instructed to climb above co-ordinated level
14/02/05	TCAS RA	B733	B733 vectored for ILS Rw 05. When on right base aircraft received RA against traffic in BW circuit
10/04/05	Airprox	B752	After departing Rw 23, B752 came into conflict with unknown traffic SE Coventry
29/04/05	CAS Infringement	B735	Whilst avoiding unknown traffic NE Coventry when being vectored for ILS 23, B735 entered NX CAS
14/08/05	Airprox	B735	Initially vectored for ILS to 23, ac was subsequently vectored for 05 after reports of tail wind from preceeding ac. Captaion received TCAS RA when down wind right hand for 05.
18/08/05	Airprox	B735	With glider activity to the ENE, B735 was given a left turn onto a NW track to avoid unknown traffic. Captain received TCAS RA

ANNEXE C

Noise Preferential Routes (showing swathes)


Birmingham CTA
Birmingham
Tamworth
Daventry CTA (Outer)
Daventry CTA
Birmingham Control Zone
Birmingham CTA
Nuneaton & Hinkley
CTA 3
1500ft - Fl 45
CTA 4
2500ft - Fl 55
10 nms
23
Bruntingthorpe
CTR 4
Sfc - Fl 45
CTR 3
Sfc - 2000ft
Dorridge
Coventry
CT
Husbands Bosworth
Redditch
Kenilworth
Rugby
CTR 2
Sfc - 1500ft
33
CTA 5
3000ft - Fl 5
Warwick
CTA 1
3000ft - Fl 45
10 nms
05
Snitterfield
CTR 1
Sfc - 3500ft
CTA 2
2500ft - 3500ft
Stratford-upon-Avon
Wellesbourne Mountford
Daventry
Northampton
Compton & Cowley
Westcott
DAVENTRY
Banbury
26.01.06