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Dear Mr Smillie,

Consultation on Controlled Airspace - Response by the Popular Flying Association

Thanks you for consulting the Popular Flying Association (PFA) on your proposals to establish controlled airspace at Coventry Airport. The PFA has 8000 members and regulates over 2000 recreational and homebuilt aircraft on behalf of the CAA. Rather than bombard you by soliciting individual responses from our members, we have prepared this consolidated view from the Association; it represents the views of our membership. PFA members operate mainly in day VFR conditions but many expect to be able to cross appropriate CAS on request. Our aircraft fleet ranges from historic examples to modern high performance aircraft with sophisticated navigation systems. Pilot experience and qualification covers the full spectrum of professional and amateur. Because of our role, we have a high regard for air safety and we take a broad view on safety matters generally. Where there are significant public transport movements at an airfield we support the establishment of appropriate airspace protection for the benefit of all airspace users. At the same time we expect any application to establish airspace protection to take a similar broad view on air safety. We expect the impact of airspace changes to be fully assessed and the balance of risk and safety to all airspace users to be analysed and taken into account. We expect airspace to be utilised in a safe and efficient manner taking into account the needs of all users.

Your application is based on the growth of Coventry public air transport movements operated by Thomsonfly. These public transport flights need to be protected (in the main) from uncontrolled VFR traffic during take-off, departure, approach and landing. The application sets out current airspace issues resulting from its closeness to Birmingham Airport and discusses the conflicting runway directions. It proposes that a substantial Class D CTR/CTA is required to resolve these issues and provide appropriate protection for Thomsonfly operations.

Our comments are set out in Annex A following the paragraph numbers in the consultation document. However, as we see it, the key issues are the degree of exposure of public transport flights to risk and how appropriate the proposed solution is having regard to the public transport risk and the effect on other airspace users. We are particularly concerned to see airspace used efficiently for the benefit of all users.

Although the number of public transport movements presented appears large, it is in fact quite modest. The annual total of 8141 movements per year is an average of only some 22 per day. Of these about half will take place at night or during periods where VFR traffic is minimal, and of the remaining 11 movements, half are departures which could remain within existing CAS given only minor adjustments. Of the 5.5 landings, 30% use runway 05 and these can remain within existing CAS with minor adjustments. This leaves some 3.85 landings per day on runway 23 which must use Class G airspace to any significant degree.

The proposed CTR would cover nearly 700 km² compared, for example, to 463 km² at London Gatwick. Airspace efficiency at Coventry would be a poor 49.8 km² per 1000 movements compared to 1.83 km² at Gatwick. Birmingham achieves some 5.5 km² (see Annex A para 5 for details of CTR and CTA efficiency). This is an extraordinary difference in efficiency of airspace use in an area that is important to sport and recreational aviation and other users. We consider it unacceptable.

The CAS proposal is so inefficient because you expect to continue with direct arrivals and departures as if the airspace was still uncontrolled. This is also unacceptable; public transport aircraft operating to controlled airports must expect to follow procedures that integrate air traffic in an efficient and structured manner for the benefit of all airspace users.

The consultation does not offer any realistic alternative option. Class E airspace does provide protection in IMC and in VMC the see and avoid principle, supplemented by radar, reduces risk. This appears to be a sensible alternative given the very low relevant traffic volumes in the area you identify as critical. You are aware that your radar processor removes glider tracks from your radar display and you recognise this as a risk factor. But your sole solution is to exclude gliders (and other aircraft) from your airspace when an alternative would be to upgrade the processor. Indeed we are concerned that this has not been dealt with already to reduce the identified risk to all airspace users.

We strongly oppose the introduction of the proposed Class D airspace on the grounds that it is quite out of proportion to the traffic volumes it is designed to protect, it does not use airspace efficiently and it does not balance the needs of all airspace users as required by CAP 724. We offer to work with you in developing an alternative and more appropriate solution.

Yours Sincerely,

John Brady
Vice-Chairman
Popular Flying Association

7 May 2006

Annex A: Detailed Comments

Detailed Comments on Consultation on controlled airspace at Coventry Airport

3.1 Air transport movements

Thomsonfly are noted as having 8210 movements in 2005. However we understand that the CAA reported total for all passenger movements for Coventry in this period was 8141. Whilst this appears to be a large number it is necessary to analyse it in relation to the risk areas identified later in the document. As we do not have access to full source data only a simplistic analysis using averages is possible at this stage. Nevertheless it gives useful indicative results as follows:

Assuming the 8141 flights are evenly distributed across the year gives an average of 22 movements per day. Of these about half will take place at night or during periods where VFR traffic is minimal, leaving 11 movements which may require the proposed protection.

At MTOM, the 737-500 aircraft (and most other aircraft of this type) can achieve an altitude of 1500 ft within the 2.5 nm ATZ, allowing transition into the Birmingham CTA without entering Class G airspace. Using an early turn for 05, departing public transport flights can remain within CAS if they choose to do so. A very minor adjustment to the boundary of the Birmingham CTA to the east would provide flexibility here. Of the 11 movements, 5.5 are departures that can already enjoy the protection of CAS if they plan to do so.

This leaves some 5.5 public transport arrivals per day to be considered. As runway 05 is in use 30% of the time, 1.65 of these arrivals will be on 05 with its approach through the Birmingham CTA and into the Coventry ATZ. A very minor adjustment to CAS boundaries would see these arrivals remaining in CAS throughout.

This leaves some 3.85 arrivals per day onto runway 23 which must pass through Class G airspace if they carry out an IFR approach. Any visual final approaches carried out would reduce this number further.

We were provided with a copy of the Thomsonfly flying programme for the period Apr to Oct 06. Analysis of this peak period programme showed a total of 1761 flights of which 1068 were day flights which might come into conflict with VFR traffic. This resulted in a daily total of 5.84 landings of which 4.85 would use runway 23. Given that this covers the peak summer period, with the greatest daylight, this appears to validate the overall annual rate of about 4 landings per day.

This small number of public transport flights can hardly be described as "a high volume of movements requiring a known traffic environment within 20nm of the airport." so we reject this as the basic premise for the establishment of CAS of this size. We note that no smaller CAS option is proposed.

Although the document says that estimated passenger numbers for 2007 are 980,000, this is not justified or supported in any independent way that we can validate. We understand from commercial sources that passenger numbers are may be falling during 2006 although we cannot validate this either. We cannot accept that passenger numbers will rise significantly at all let alone at the rate proposed

3.2 Thomsonfly Operations

It is said to be the policy of Thomsonfly to have the maximum airspace protection; something any AOC holder should espouse. However, we are aware that its aircraft flight plan into Class G airspace when routing through Class A airspace is available. For example, direct departures and arrivals at Coventry and routings via BCN through the busy Class G airspace to the West to avoid London airspace to the South East. No doubt Thomsonfly has conducted a risk analysis and concludes that its policy on operating in Class G airspace is appropriate.

3.3 Integration with Birmingham Traffic

The integration of traffic between the 2 airports is clearly difficult. This is a function of the proximity of the airports and the conflicting runway directions and carries a real risk. Establishing a vast swathe of CAS will not change this. Indeed the suggested expansion of Coventry following on from the establishment of dedicated CAS will exacerbate the dangers. No risk analysis has been published.

3.4 Safety Aspects

Data has been collated by the airport but this is being withheld from the consultation process to be produced to DAP during the formal application. We believe this is contrary to the spirit of the consultation procedures and we would wish to be able to review it.

The list of MORs at Annex B is said to be relevant to justification of CAS. This is not the case. For example, violation of existing CAS have no relevance to the establishment of the proposed CAS. Full details of these incidents are required before the consultation can be considered in accordance with CAP 725 and irrelevant incidents must be removed from the justification.

3.5 Operational Efficiency Benefits

We are sure that all airlines would always wish to be able to take direct routing inbound and outbound but this is rarely possible. There are many examples of this especially in the London area. It is not unreasonable to expect Coventry traffic to make full use of existing CAS rather than to demand large volumes of reserved airspace for so few movements (see later comments). Turning to the calculations themselves, they compare the full STAR arrival with a direct approach through the proposed airspace. Whilst it is sometimes necessary for Birmingham arrivals to follow a full STAR, shorter routings are common and we would expect Coventry traffic to benefit similarly, reducing the cost impact. We would also expect arrivals to follow a CDA to reduce environmental impact and to further minimise fuel costs. Provided the descent profile is managed appropriately the impact of a longer routing is not as great as is suggested and the average additional cost per passenger is very small indeed. Whilst this is a commercial consideration, a refusal of Class D airspace will not limit the public's access to low cost air travel in any way.

3.6 General Aviation Activity

The consultation document describes the local airfields and mentions transit VFR traffic and whilst statistical data has been collected it is not presented. The document does not discuss the importance of the effected airspace to sport and recreational aviation. The Birmingham and Nottingham East Midlands CAS closes a significant part of the Midlands to this traffic. Were Coventry airspace to be extended as proposed, the combined CAS would dominate the area, effectively closing it to these users. Some transit traffic could obtain a crossing service but we know that as terminal airspace becomes busy, VFR traffic is routinely denied access. It is quite understandable that ATC providers are constrained by the resources necessary to offer a service to the airport they serve. Capacity to accept VFR traffic is only ever provided when resources permit so the proposal would exclude much S&RA VFR traffic. For most gliders and many simple aircraft, the airspace would effectively be closed anyway and the great majority of VFR traffic would avoid the area. This will produce unnecessary concentrations of traffic elsewhere whilst the new Class D airspace would be almost devoid of traffic.

The existing level VFR traffic passes close to Coventry because surrounding CAS funnels it in to the remaining Class G Area. This is not a reason to establish a “known traffic environment within 20nm of Coventry Airport” thereby concentrating the traffic even further.

3.7 Military Operations

Whilst we have no direct view on military operations in the vicinity of Coventry, we are concerned that establishing the proposed airspace will have the effect of concentrating military and Civil VFR traffic into the same small areas increasing risk and environmental nuisance. Meanwhile, the reserved Coventry airspace would have a much lower traffic density (see para 5)

4.0 Analysis of Change

The do nothing option is dismissed on the basis of growth of Coventry airport and the need to exclude other traffic. The Midlands is blessed with several international airports and the growth of Coventry is not necessary to sustain national transport policy. Indeed, because of its runway conflict with Birmingham it is likely that overall safety will be compromised if such growth is permitted and continued growth at Birmingham may need to be restricted as a result.

Regular operation of public transport aircraft in Class G airspace is undesirable and we support the establishment of controlled airspace in appropriate circumstances. However, the volume of traffic that must fly outside CAS in risk periods is so low that we cannot support the establishment of Class D airspace. Much of the airspace proposed would encompass those areas where public transport aircraft currently fly outside CAS even though a route that would enable them to remain inside CAS is available today.

The establishment of Class E airspace is not considered in the consultation and we are aware you have dismissed this option as not providing the protection required. We differ on this. When VFR conditions pertain, traffic can see and avoid, assisted by radar services. When IFR conditions pertain, VFR traffic is excluded so separation and protection for IFR traffic is available. This controls risk appropriately in a low density IFR environment such as we find at Coventry. It is a mistake to assume that Class D airspace is a panacea; level busts and other

traffic conflicts still pose a risk especially when IFR traffic is concentrated in time and space. Here, with the potentially dangerous interaction between Coventry and Birmingham, traffic growth may need to be restricted to contain risk even with Class D airspace.

The Consultation notes that the S511 radar data processor suppresses gliders generating a hazard. One has to ask why this has been allowed to continue. As the airport considers gliders from adjacent sites to be a significant hazard its risk analysis should have identified a change to the radar processor as an option. We are aware that other aerodrome radars can identify gliders and are concerned that Coventry Airport has dismissed this option as not providing the protection required. Indeed we are very surprised that this has not already been implemented given the level of concern expressed by the Airport.

The option to extend BIA controlled airspace is not really an alternative option as far as the consultation is concerned. The proposed airspace is identical but control would be vested in BIA. This appears to be presented to defend against BIA's objections to the proposal. It is not an alternative option and should not be presented as such.

5 Airspace Design Proposals

We would first like to consider the overall impact and efficiency of the proposed airspace before going on to look at individual elements. It is instructive to contrast the size of the proposed airspace with other UK airports and using CAA total air transport movements for 2005 to deduce the efficiency of the airspace. (Note that dimensions are approximate having been estimated from published mapping and relate to area not volume. ATM data is drawn from data published on the CAA website and relates to total scheduled and charter passenger movements for 2005).

Airport	CTR size (km ²)	CTA size (km ²)	ATMs (1000)	CTR Efficiency (km ² used /1000ATM)	CTA Efficiency (km ² used /1000ATM)
Coventry	695	950	13.951	49.8	68
Birmingham	628	1225	113.594	5.5	10.78
Gatwick	463	920	253.000	1.83	3.6

Whereas Gatwick needs a CTR of only 1.83 km² per 1000 movements, Coventry expects nearly 50 km². An airspace design that needs 27 times more airspace per movement than a major London airport is not acceptable.

The proposed Coventry CTA would be even larger but for the fact that it abuts the existing Birmingham CTA but even then it would achieve an efficiency of only 68 km² per 1000 movements compared to Birmingham's 10.78. Considering that these airports are affected by the same routing and regional factors, this is also unacceptable.

In absolute terms, a controlled airspace covering nearly 1000 km² is not appropriate for some 4 relevant movements per day.

5.4 Control Zone

The consultation document describes the CTR and justifies the volume as follows:

- a. To protect traffic being vectored in conformity with the radar vectoring area minima. This is wholly unnecessary and environmentally inappropriate. Public transport aircraft should not be vectored at altitudes of 1500 or 1700ft all around the proposed area, even though that is the minimum safe altitude. They should follow a CDA or stepped descent until glidepath intercept to minimise noise nuisance and to conserve fuel as required in earlier paragraphs. This is best practice. The proposal does not justify controlled airspace down to ground level and as such does not justify the proposed CTR.
- b. To protect traffic following a published let down. Published letdowns should be drawn in line with para a. and anyway do not require the dimensions of the proposed CTR.
- c. For training. The CAS proposal is based on safety of public transport flights. Training as described here does not take place on public transport flights so this is not relevant to the establishment of a CTR.

We contend that large parts of the proposed CTR are quite unnecessary even if traffic volumes were high. They are not.

5.5 Control Area

The proposed control area is designed to allow aircraft to depart on track without the need to follow an SID into existing CAS as is required at Birmingham and elsewhere, and to allow direct vectoring of inbound traffic onto final. Coventry expects to acquire sufficient airspace that existing direct procedures can be retained in a controlled environment and this has resulted in the enormous area covered by its proposal. Quite modest routing and streaming of traffic would allow the airspace volumes to be reduced significantly or discarded altogether. Given the extremely low traffic volume, the CTA is not justified.

6.0 Operational Impact

Whilst the proposal focuses on the operational impact to Coventry based aircraft, our concern is mainly with locally based and transit aircraft. The majority of these will be excluded for the airspace and there will be no right of access for those that request it. A significant number of aircraft and airfields will be adversely affected.

7. Airspace Design

We have no particular comments on the design of the airspace that are not already covered by our earlier comments. In general terms the airspace design should be related to the traffic volumes and this is clearly not the case.

8. Environmental Impact

We have no comment on the environments impact.