



All NATMAC Representatives
17 February 2012

CAA DECISION LETTER

Dear Stakeholders,

RECLASSIFICATION OF THE GLASGOW CONTROL AREA (CTA)

1 INTRODUCTION

- 1.1 The Glasgow CTA was formed on 28 September 2008 through the redesignation of that part of Class E Scottish TMA within which Glasgow acted as de facto controlling authority/ATS provider. In May 2009, the Directorate of Airspace Policy received a formal proposal from NATS Glasgow to further revise the airspace through the reclassification of the CTA from Class E to Class D Controlled Airspace. Assessment of the proposal revealed numerous deficiencies that were referred back to the Change Sponsor. Following this Directorate's consideration of the original proposal submission, and extensive communication with the Change Sponsor, supplementary proposal development and refinement took place in order to further mitigate the impacts associated with reclassification.
- 1.2 A revised submission was subsequently received on 29 July 2011. In addition to CTA reclassification and increases in the CTA's base altitude, this sought to revise the boundaries of the Glasgow CTR, thus reducing the volume of Class D airspace in the vicinity of Glasgow Airport. A target implementation date of not before 17 November 2011 (AIRAC 12/2011) was identified by the Change Sponsor.
- 1.3 Following an AIRPROX incident on 23 July 2011 between a glider and civil air transport aircraft within the Glasgow CTA, a safety critical risk was deemed to exist within the CTA. Consequently, it was considered necessary to reclassify the Glasgow CTA to Class D as an interim safety measure pending full assessment of NATS Glasgow's proposals in accordance with the requirements of the Airspace Change Process, prior to any subsequent permanent changes to the subject airspace.
- 1.4 The purpose of this letter is to advise you of the proposal and my decision on the proposal submitted in July 2011, based upon my statutory duties as set out in Section 70 of the Transport Act 2000 (the Act), the CAA (Air Navigation) Directions 2001, as varied in 2004 (the Directions), and Guidance to the CAA on Environmental Objectives relating to the Exercise of its Air Navigation Functions issued in 2002 by the then Department for Transport, Local Government and the Regions (the Guidance).¹

¹ Assessment of the proposal predates DfT's January 2012 Addendum to the 2002 Guidance to the Civil Aviation Authority (CAA) on Environmental Objectives Relating to the Exercise of its Air Navigation Functions. The Addendum does not affect the decision in any way.

2 STATUTORY DUTIES

2.1 Safety

2.1.1 My primary duty is to maintain a high standard of safety in the provision of air traffic services and this takes primacy over all other duties.¹ In this respect, I am satisfied that the proposed revisions can be safely adopted. The safety of public transport flights to and from Glasgow airport will not be adversely affected by the proposed change. In addition, published Standard Instrument Departure procedures, Standard Arrival Routes and Instrument Approach Procedures as currently published in the Aeronautical Information Publication (AIP) will remain adequately contained within controlled airspace.

2.2 Airspace Efficiency

2.2.1 I am required to secure the most efficient use of the airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic.² In this case, the most efficient and expeditious route to be followed by inbounds via TALLA is direct to left base through this portion of airspace.

2.2.2 The reclassification of the CTA will not affect the requirement for arrival sequences to be achieved without compromising the minimum separation between arriving aircraft. In addition, the revised CTR continues to ensure that aircraft departing Glasgow Airport can both be contained within the boundaries of controlled airspace and adequately separated from arriving aircraft routeing through the CTA.

2.2.3 The scope for any further immediate enhancement to local airspace arrangements is limited to the size and shape of the Glasgow CTR, which is currently based upon cross-runway operations. Given that Glasgow's secondary runway has been decommissioned, NATS Glasgow has agreed to review its CTR requirements to determine what scope exists to revise the size and shape whilst still containing published procedures, preserving appropriate interfaces with the Scottish TMA, avoiding over-complication of airspace boundaries and permitting flight beneath any additional CTAs in accordance with Rule 5 and Rule 6 of Rules of the Air 2007. Further scope for change may be likely following any future changes to the Scottish TMA, therefore the CAA considers it appropriate for future Glasgow airspace requirements to be considered within the scope of any future NATS-led Scottish TMA redevelopment activity.

2.3 Airspace Users

2.3.1 I am required to satisfy the requirements of operators and owners of all classes of aircraft.³ The Sponsor consulted affected stakeholder aviation groups as part of the change process and amended its proposals in the light of responses. My consideration of the consultation aspects of this proposal is detailed below.

2.3.2 As the ATS provider, NATS Glasgow has committed to provide access to the revised airspace, when safe and appropriate, and will maintain records of refusal of service that will be subject to scrutiny at periodic intervals by my staff. Glider access through

¹ Transport Act 2000, Section 70(1).

² Transport Act 2000, Section 70(2)(a).

³ Transport Act 2000, Section 70(2)(b).

the CTA has been of particular concern to the British Gliding Association (BGA); at the Directorate's request, the BGA, NATS Glasgow and NATS Edinburgh have undertaken to develop an operating agreement to facilitate glider access through the CTA. Development is at an advanced stage and implementation of the resultant Letter of Agreement is planned to occur on 5 April 2012.

- 2.3.3 NATS Glasgow has additionally committed to continue to provide an appropriate level of ATS to traffic operating in the vicinity of controlled airspace. One aspect of this undertaking is continued service provision to aircraft operating in and out of Cumbernauld aerodrome under both IFR and VFR. To that end, NATS Glasgow have been invited to consider the need for a Letter of Agreement with the operators of Cumbernauld aerodrome to formalise arrangements for service provision to Cumbernauld traffic as currently addressed in Glasgow's Manual of Air Traffic Services Part 2.
- 2.3.4 It is essential that VFR flight in, around and beneath controlled airspace is undertaken in as safe a manner as possible, and with the lowest possible risk of airspace infringement. Additional Visual Reference Points (VRPs) may be required in order to demarcate the revised airspace boundaries as a means of reducing the possibility of inadvertent airspace infringements. NATS Glasgow has been invited to consider the need for additional VRPs, the approval and establishment of which will occur as and when a need has been identified.
- 2.3.5 In the light of these assurances and undertakings, I am satisfied that Glasgow ATC will continue to provide the current level of service provision both within and outside the revised airspace, and that the revised structures will not be detrimental to airspace users as a whole. Furthermore, I am aware that some aspects of this somewhat protracted consultation have been less than ideal and I have taken measures to ensure that this does not reoccur. The effectiveness of the airspace arrangements will also be monitored closely post implementation.

2.4 Interests of Other Parties.

- 2.4.1 I am required to take account of the interests of any person (other than an owner or operator of an aircraft) in relation to the use of any particular airspace or the use of airspace generally.¹ The Change Sponsor has consulted local government authorities and non-governmental organisations whose areas of responsibility or interest lie beneath the new airspace. The single non-aviation response was neutral in nature. I am therefore content that the interests of affected non-aviation parties have been appropriately considered.

2.5 Environmental Objectives and Impact

- 2.5.1 In performing my statutory duties, I am obliged to take account of the Guidance provided by the Secretary of State. My consideration of the environmental aspects of this proposal is detailed below.

2.6 Integrated operation of ATS

- 2.6.1 I am required to facilitate the integrated operation of air traffic services provided by or on behalf of the armed forces of the Crown and other air traffic services.² In this respect, the Ministry of Defence has been involved in the consultation processes and

¹ Transport Act 2000, Section 70(2)(c).

² Transport Act 2000, Section 70(2)(e).

have stated that they are satisfied that the impacts of the changes as proposed have been sufficiently mitigated.

2.7 National Security

- 2.7.1 I am required to take into account the impact any airspace change may have upon matters of national security.¹ The Glasgow airspace change proposal has taken military access considerations into account and I am satisfied that national security requirements will not be jeopardised by its implementation.

2.8 International Obligations

- 2.8.1 I am required to take into account any international obligations entered into by the UK and notified by the Secretary of State.² No new international obligations arise as a result of the Glasgow airspace change proposal, neither have international interfaces been affected.

3 ENVIRONMENTAL CONSIDERATIONS

- 3.1 It is likely that reclassification of the CTA will lead to some VFR traffic (expected to be principally recreational General Aviation) that operated through the relevant airspace when Class E no longer doing so either because they are not radio-equipped, choose not to, or are not given clearance by ATC to do so. Class D airspace, in its own right, does not prohibit access for suitably equipped aircraft and this should further mitigate against displacement of traffic. It is not possible to predict - or model - the number of aircraft that may be affected in these ways; therefore it not possible to predict or model the environmental impact with any certainty. Monitoring by the local ATC agencies suggests that utilisation of this airspace by VFR traffic is extremely low.
- 3.2 The increased CTA base will require Glasgow arrivals routeing via the CTA to remain slightly higher for longer, however trial procedures have revealed minimal change to actual tracks flown by arriving aircraft (the interim arrangements introduced in September 2011 were predicated on a 3000 ft amsl CTA base).
- 3.3 En-route operations are not affected by this proposal and as a direct consequence my assessment is that there will be little or no environmental change as a consequence of this proposal. Maintaining the ability of commercial air transport aircraft to route direct from TALLA to the left base position for runway 23 minimises the overflight of more densely populated areas and keeps the number of track miles flown to a minimum; it also avoids the potential requirement for 2 large (more than 90 degree) turns.

4 CONSULTATION

- 4.1 In accordance with the requirements of CAPs 724 and 725, the Change Sponsor undertook a 14-week consultation with 32 NATMAC members, 17 airlines and 32 local non-commercial aviation stakeholders affected by the proposal. A further 50 unsolicited responses – mostly from recreational aviation pilots – were also received.
- 4.2 A total of 115 aviation-related responses were received, of which 18 (16%) expressed support for the proposal. 42 (37%) responded negatively; of these responses, 36 came from unsolicited sources. The remaining 47% either had no comment to make

¹ Transport Act 2000, Section 70(2)(f).

² Transport Act 2000, Section 70(2)(g).

or did not respond. An addendum consultation on revised proposals was undertaken in 2011. Seven expressions of support were received, with five objections.

4.3 Objections to the proposals focussed on several issues, each of which were considered when assessing NATS Glasgow's proposals:

- **Restricted airspace access to GA and aircraft concentration in airspace.** IFR and VFR operations are permitted within Class D airspace, subject to ATC clearance and aircraft being equipped with a radio (exceptionally, non-radio access may be permitted). Reclassification of the CTA may result in additional traffic operating below it either because they are not radio-equipped, choose not to enter the CTA, or are not given clearance by ATC to do so. Whilst it is not possible to predict the actual number of aircraft that will be affected, radar-derived data provided by NATS Glasgow suggests that relatively small numbers of VFR aircraft transited the CTA on a daily basis prior to 'fast track' reclassification in September 2011. NATS Glasgow has committed to provide access to the revised airspace when safe and appropriate, and at the Directorate's request is developing an operating agreement with the BGA and NATS Edinburgh to facilitate glider access through the CTA.
- **Misleading data/information.** The Change Sponsor's consultation material referred to airport growth based upon projections contained within Glasgow Airport's 2006 Master Plan. These growth claims were contradicted by actual data indicating airport contraction (which the CAA had noted through analysis of its own airport statistics). The reasons why were not explored by the Sponsor, however the downturn in traffic was acknowledged in correspondence to several stakeholders. 'Addendum consultation' material did not reflect revised growth projections contained within the 2011 Masterplan and actual data was not updated to reflect prevailing airport conditions at the time, despite some evidence of recovery. Claims that the consultation document erroneously cites 108,000 *commercial* movements in 2007 are not supported – one such mention is made but is assumed to be erroneous as the figure is ascribed to individual aircraft movements elsewhere within the document. That said, movements data contained within consultation material did not tally with that held by the CAA, however the degree of difference was not as significant as that claimed by at least one stakeholder. The CAA supports the observation that 2008 data was missing from the original consultation document.

DAP analysis of airports statistics indicates a 4% increase in passenger numbers during the period January-November 2011 over the same period in 2010. Total air transport movements are essentially unchanged, increases in Passenger, Freight and Test & Training aircraft movements being offset by decreases in 'Aero Club' and other movements. Therefore it can be seen that some recovery in passenger-carrying operations has been achieved; whether this can be sustained remains to be seen.

- **Use of the CTA.** A number of consultation responses queried NATS Glasgow's claims concerning use of the airspace by arriving aircraft, claiming in turn that occupancy was significantly lower than stated in consultation material. It is assumed that such analysis is based upon published procedures that do not reflect actual operational practices based upon radar vectoring; it is not clear whether the hourly rates cited by a number of stakeholders are based on a 24-hour period or not. Such practice is commonplace and allows airspace controlling authorities to make the most efficient use of available airspace. Reversion (other than in non-radar contingency circumstances) to pilot-interpreted instrument procedures as

published in the UK AIP would generate significant operational efficiency and capacity issues, plus significant changes to environmental impacts.

DAP analysis reveals that Rwy 23 is used approximately 73% of the time, with Rwy 23 arrivals (over 100 per day) representing approximately 37% of all movements and 75% of all arrivals (Rwy 05 arrivals representing 13% of all movements and 25% of all arrivals). Whilst the numerical data used to make such calculations did not provide any indication as to how arrivals routed to the airport, it is considered reasonable to conclude that the proportion of Glasgow traffic transiting the CTA (including Rwy 23 departures following SIDs through it) is significant.

- **Dimensions of the proposed controlled airspace and lack of consideration for design alternatives.** The original change proposal sought reclassification without change to vertical and lateral boundaries. The Change Sponsor originally rejected the option to amend these but increases to the CTA base that reflected consultation feedback featured in the proposal as originally submitted to the CAA. Subsequent discussions with the CAA have resulted in further changes to CTA base altitudes and a reduction in the size of the Glasgow CTR.
 - **Appropriateness of vectoring commercial air traffic through Class E airspace.** The appropriateness of vectoring passenger air transport movements through Class E airspace was called into question by a number of stakeholders. Class E airspace is not inherently unsafe, however Class D confers additional safety benefits by virtue of it being a 'known traffic environment'. The advantages of radar vectoring are described above.
 - **No justification on safety grounds for change.** The Change Sponsor presented safety rationale for change within its consultation document. This expressed concerns that the volume of Glasgow traffic operating through the CTA warranted a higher classification and explained why, in the opinion of NATS Glasgow, reclassification to Class D could be justified. The CAA noted that only a limited number of reported safety occurrences were available to support safety claims. Avoiding action may have been necessary on numerous occasions, but as no supporting data is available it is not possible to speculate on the level and nature of disruption to traffic within the CTA. Critical comment concerning references to closing speeds has been noted, but there is no suggestion within consultation or proposal documentation that speed limits associated with the Class E airspace had been exceeded, neither is there any suggestion that all encounters within the CTA would be between aircraft operating at maximum speeds. However, as mentioned above, following the AIRPROX incident on 23 July 2011 between a glider and civil air transport aircraft within the Glasgow CTA, a safety critical risk is deemed to exist within the CTA and this cannot be adequately mitigated by other means.
 - **Scottish TMA.** Several stakeholders referred to the size and shape of the Scottish TMA, and the need for changes to it. The TMA has always been outside the scope of this specific change proposal.
- 4.4 16 affected local authorities and local Westminster MPs were informed of the proposals. Of these, one local authority responded without comment as the proposal did not materially or significantly affect their interests. No other comments from non-aviation sources were received.
- 4.5 A 14-week consultation was undertaken principally by electronic means (e-mail). Steps were taken to ensure all necessary consultees received consultation material,

and details of the change proposal also appeared on the NATS website. The Sponsor's analysis of consultation responses – also published in the NATS website - was considered to be no more than adequate and would have greatly benefitted from more detailed consideration of, and response to, the issues raised by stakeholders.

- 4.6 A secondary abbreviated 'addendum' consultation was undertaken in 2011 at the request of the CAA, again principally by electronic means. An abbreviated consultation period was considered appropriate given earlier consultation and proposal refinements. This was targeted at aviation stakeholders, in particular those who opposed the original proposal.

5 REGULATORY DECISION

- 5.1 The Glasgow airspace change proposal is considered to be safe, which satisfies my principal statutory duty. In addition, I am satisfied that the proposed change will continue to meet the needs of operators within the Glasgow CTR by affording the appropriate degree of containment to existing procedures within it.
- 5.2 Therefore, and notwithstanding acknowledged limitations associated with proposal consultation, I am satisfied that the Change Sponsor has met safety (in particular the protection of public transport flights), efficiency and environmental requirements and hereby approve the introduction of this change proposal.
- 5.3 The changes will take effect from 5 April 2012 (AIRAC 4/2012) and will be subject to review by members of my staff approximately 12 months after implementation. If you have any queries, the DAP Project Leader, Mr D J Drake, may be contacted on 0207 453 6512, or via e mail to dave.drake@caa.co.uk.
- 5.4 A description of the airspace revisions and a map illustrating these are enclosed.

Yours sincerely,

Mah Swan

M Swan
Director

Enclosures:

1. Revised Glasgow CTR/CTA boundaries (table).
2. Glasgow Control Zone and Control Areas effective 5 April 2012 (map).

Distribution:

NATMAC Membership

REVISED GLASGOW CTR/CTA BOUNDARIES

Designation and lateral limits	Vertical limits	Airspace Classification
Glasgow Control Zone (CTR) 560400N 0042000W - 560130N 0040435W – 554434N 0040924W - 554132N 0042405W – 553700N 0042847W - 554428N 0045035W – 554600N 0044951W - 555500N 0045200W – 560400N 0042000W.	6000 ft ALT/ SFC	D
Glasgow Control Area (CTA – 1) 560700N 0034855W - 560700N 0040910W – 560400N 0042000W - 560130N 0040435W – 554434N 0040924W - 554349N 0034715W – 554806N 0035411W - 555724N 0035417W – 560700N 0034855W.	6000 ft ALT/ 3000 ft ALT	D
Glasgow Control Area (CTA – 2) 554349N 0034715W - 554434N 0040924W – 554132N 0042405W - 553700N 0042847W – 554125N 0041017W - 554125N 0034324W – 554349N 0034715W.	6000 ft ALT/ 3500 ft ALT	D
Glasgow Aerodrome Traffic Zone (ATZ) Circle radius 2.5 nm centred on longest notified runway (05/23) 555218N 0042601W.	2000 ft aal/ SFC	D

