

30 November 2015
Reference: F0002538

Dear XXXX

I am writing in respect of your recent request of 30 October 2015, for the release of information held by the Civil Aviation Authority (CAA).

Your request:

I write on behalf of the XXXX to request a copy of the "CAA SARG Report into Belfast TMA." The NATS Airspace Consultation Proposal into the change to the Belfast TMA from Class E to Class D makes reference to this report by the CAA's Safety and Airspace Regulation Group (SARG) written in November 2014.

Our response:

Having considered your request in line with the provisions of the Freedom of Information Act 2000 (FOIA), we are able to provide the information below.

The current status and effectiveness of the Belfast TMA, along with the impact of the changes detailed in SI 2014/04 (Issue 2) Replacement of Class F Airspace in the UK FIRs, was assessed at the time of the Belfast Aldergrove ANSP audit in November 2014. Part of the purpose of such audits is to review the ANSP's compliance with approvals issued by the CAA under both European legislation and UK legislation, specifically the Air Navigation Order 2009.

While reports resulting from audits are produced by the CAA and, in part, consists of information gleaned from the CAA's observations during an audit, those observations stem from and are inextricably linked to information furnished to the CAA by the organisation being audited.

Under Section 23 of the Civil Aviation Act 1982, information which relates to a particular person (which includes a company or organisation) and has been supplied to the CAA pursuant to an Air Navigation Order is prohibited from disclosure. However, under Section 23(1)(a) of the Civil Aviation Act 1982, the CAA is able to disclose information with the consent of the person or organisation that it relates to.

In this case, the requested report relates to the ANSPs for both Belfast International and Belfast City airports. We have sought consent from both organisations, which has been

Civil Aviation Authority

Aviation House Gatwick Airport South Gatwick RH6 0YR. www.caa.co.uk

Telephone: 01293 768512. foi.requests@caa.co.uk

provided with the exception of one section which we therefore remain prevented from disclosing under Section 44 (1)(a) of the FOIA which provides that information is exempt information if its disclosure is prohibited by, or under, any enactment. A copy of this exemption can be found below.

We have also removed some personal data under in accordance with Section 40(2) of the FOIA as to release the information would be unfair to the individuals concerned and would therefore contravene the first data protection principle that personal data shall be processed fairly and lawfully. A copy of this exemption can be found below.

If you are not satisfied with how we have dealt with your request in the first instance you should approach the CAA in writing at:-

Caroline Chalk
Head of External Information Services
Civil Aviation Authority
Aviation House
Gatwick Airport South
Gatwick
RH6 0YR

caroline.chalk@caa.co.uk

The CAA has a formal internal review process for dealing with appeals or complaints in connection with Freedom of Information requests. The key steps in this process are set in the attachment.

Should you remain dissatisfied with the outcome you have a right under Section 50 of the FOIA to appeal against the decision by contacting the Information Commissioner at:-

Information Commissioner's Office
FOI/EIR Complaints Resolution
Wycliffe House
Water Lane
Wilmslow
SK9 5AF
www.ico.gov.uk/complaints.aspx

If you wish to request further information from the CAA, please use the form on the CAA website at <http://www.caa.co.uk/application.aspx?catid=286&pagetype=65&appid=24>.

Yours sincerely

A handwritten signature in black ink, appearing to read 'M Stevens'.

Mark Stevens
External Response Manager

CAA INTERNAL REVIEW & COMPLAINTS PROCEDURE

- The original case to which the appeal or complaint relates is identified and the case file is made available;
- The appeal or complaint is allocated to an Appeal Manager, the appeal is acknowledged and the details of the Appeal Manager are provided to the applicant;
- The Appeal Manager reviews the case to understand the nature of the appeal or complaint, reviews the actions and decisions taken in connection with the original case and takes account of any new information that may have been received. This will typically require contact with those persons involved in the original case and consultation with the CAA Legal Department;
- The Appeal Manager concludes the review and, after consultation with those involved with the case, and with the CAA Legal Department, agrees on the course of action to be taken;
- The Appeal Manager prepares the necessary response and collates any information to be provided to the applicant;
- The response and any necessary information is sent to the applicant, together with information about further rights of appeal to the Information Commissioners Office, including full contact details.

Freedom of Information Act: Section 44

(1) Information is exempt information if its disclosure (otherwise than under this Act) by the public authority holding it-

- (a) is prohibited by or under any enactment,
- (b) is incompatible with any Community obligation, or
- (c) would constitute or be punishable as a contempt of court.

(2) The duty to confirm or deny does not arise if the confirmation or denial that would have to be given to comply with section 1(1)(a) would (apart from this Act) fall within any of paragraphs (a) to (c) of subsection (1).

Freedom of Information Act: Section 40

- (1) Any information to which a request for information relates is exempt information if it constitutes personal data of which the applicant is the data subject.
- (2) Any information to which a request for information relates is also exempt information if-
 - (a) it constitutes personal data which do not fall within subsection (1), and
 - (b) either the first or the second condition below is satisfied.
- (3) The first condition is-
 - (a) in a case where the information falls within any of paragraphs (a) to (d) of the definition of "data" in section 1(1) of the Data Protection Act 1998, that the disclosure of the information to a member of the public otherwise than under this Act would contravene-
 - (i) any of the data protection principles, or
 - (ii) section 10 of that Act (right to prevent processing likely to cause damage or distress), and
 - (b) in any other case, that the disclosure of the information to a member of the public otherwise than under this Act would contravene any of the data protection principles if the exemptions in section 33A(1) of the Data Protection Act 1998 (which relate to manual data held by public authorities) were disregarded.
- (4) The second condition is that by virtue of any provision of Part IV of the Data Protection Act 1998 the information is exempt from section 7(1)(c) of that Act (data subject's right of access to personal data).
- (5) The duty to confirm or deny-
 - (a) does not arise in relation to information which is (or if it were held by the public authority would be) exempt information by virtue of subsection (1), and
 - (b) does not arise in relation to other information if or to the extent that either-
 - (i) the giving to a member of the public of the confirmation or denial that would have to be given to comply with section 1(1)(a) would (apart from this Act) contravene any of the data protection principles or section 10 of the Data Protection Act 1998 or would do so if the exemptions in section 33A(1) of that Act were disregarded, or
 - (ii) by virtue of any provision of Part IV of the Data Protection Act 1998 the information is exempt from section 7(1)(a) of that Act (data subject's right to be informed whether personal data being processed).
- (6) In determining for the purposes of this section whether anything done before 24th October 2007 would contravene any of the data protection principles, the exemptions in Part III of Schedule 8 to the Data Protection Act 1998 shall be disregarded.
- (7) In this section-

"the data protection principles" means the principles set out in Part I of Schedule 1 to the Data Protection Act 1998, as read subject to Part II of that Schedule and section 27(1) of that Act;

"data subject" has the same meaning as in section 1(1) of that Act;

"personal data" has the same meaning as in section 1(1) of that Act.

Review of the Belfast TMA Arrangements

Introduction

The current status and effectiveness of the Belfast TMA, along with the impact of the changes detailed in SI 2014/04 (Issue 2) Replacement of Class F Airspace in the UK FIRs, was assessed at the time of the Belfast Aldergrove ANSP audit, 4-6 November 2014.

The final version of SI 2014/04 (Issue 3) was published 7 November 2014 with an effective date 13 November 2014.

During the visit time was spent observing the Approach Radar operation and discussing the issues with ATCO's in situ. A Watch briefing was also attended during the visit, where the potential impact of SI 2014/04 was discussed. Further to these activities discussions with a number of very experienced and senior ATC staff members were held, outside of the operational environment.

History

The complete history of how this airspace developed has now been long lost in the mists of time. As with other complex TMA areas, it is suspected that when first introduced (probably in excess of 20-30 years ago) traffic levels were a fraction of what they are today and probably, more significantly, aircraft types and performance were dramatically different. Over the years, largely as a result of the connectivity of the airways system, which has effectively formed the TMA, the airspace has just been added to and adapted in a piecemeal fashion, eventually creating the current arrangement which is an extremely complicated patchwork of areas of Class D and E airspace.

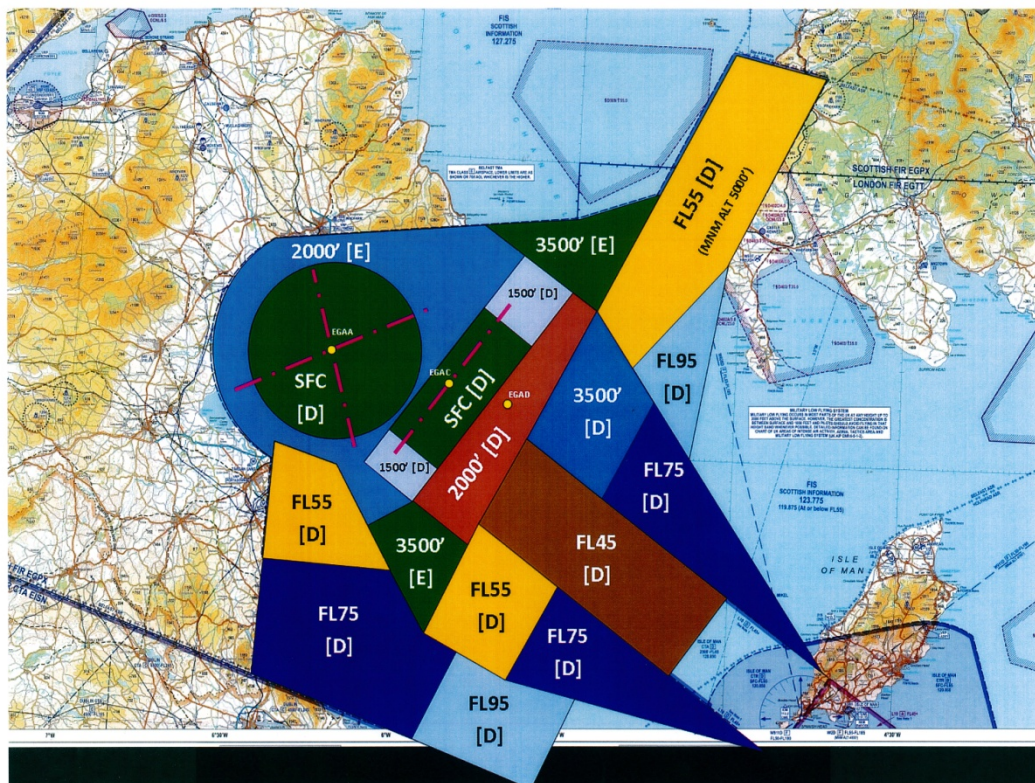


Fig 1

The above chart (Fig 1) is a simplistic representation, which does not include any view of the numerous areas where Class D and E airspace overlap at differing levels, or of the actual airway delineation.

Below (Fig 2) is a screen shot of the radar display used by the ATCO's.

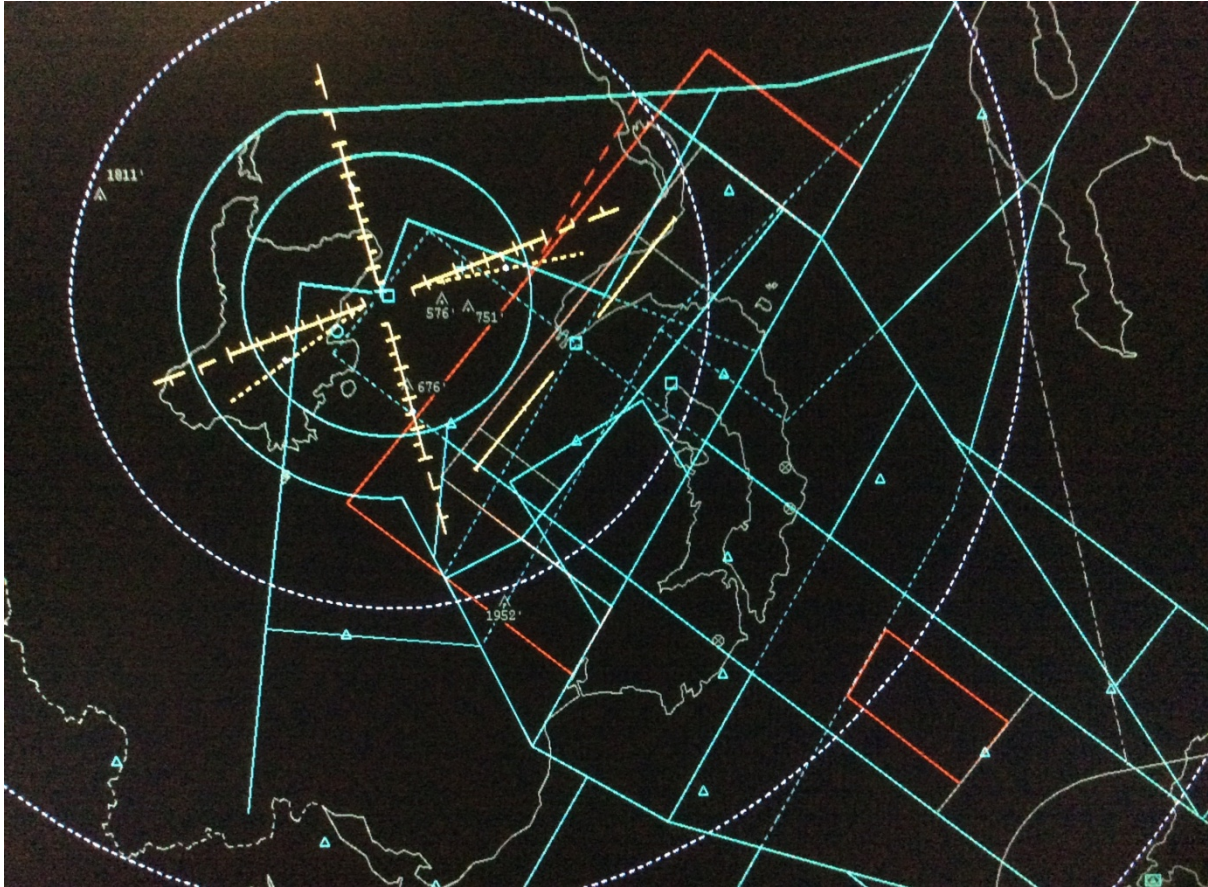


Fig 2

This shows the airways structure within the airspace and areas of responsibility where the airspace is shared with Belfast City Airport.

As mentioned earlier, given the way that the airspace has developed over many years and the way traffic levels have increased, together with enhanced aircraft performance; the lateral and vertical limits of the current airspace present a significant challenge to the controller's requirement to contain aircraft within the confines of Controlled Airspace, even without the complexity of the classification arrangements.

The chart below (Fig 3) gives a clearer picture of the challenges presented to Controllers by the upper constraints of Class E airspace, particularly when handling aircraft arriving high from the NE along the Airway P600. This chart also begins to give a clearer indication of the airspace complexity where areas of Class D and E airspace overlap.



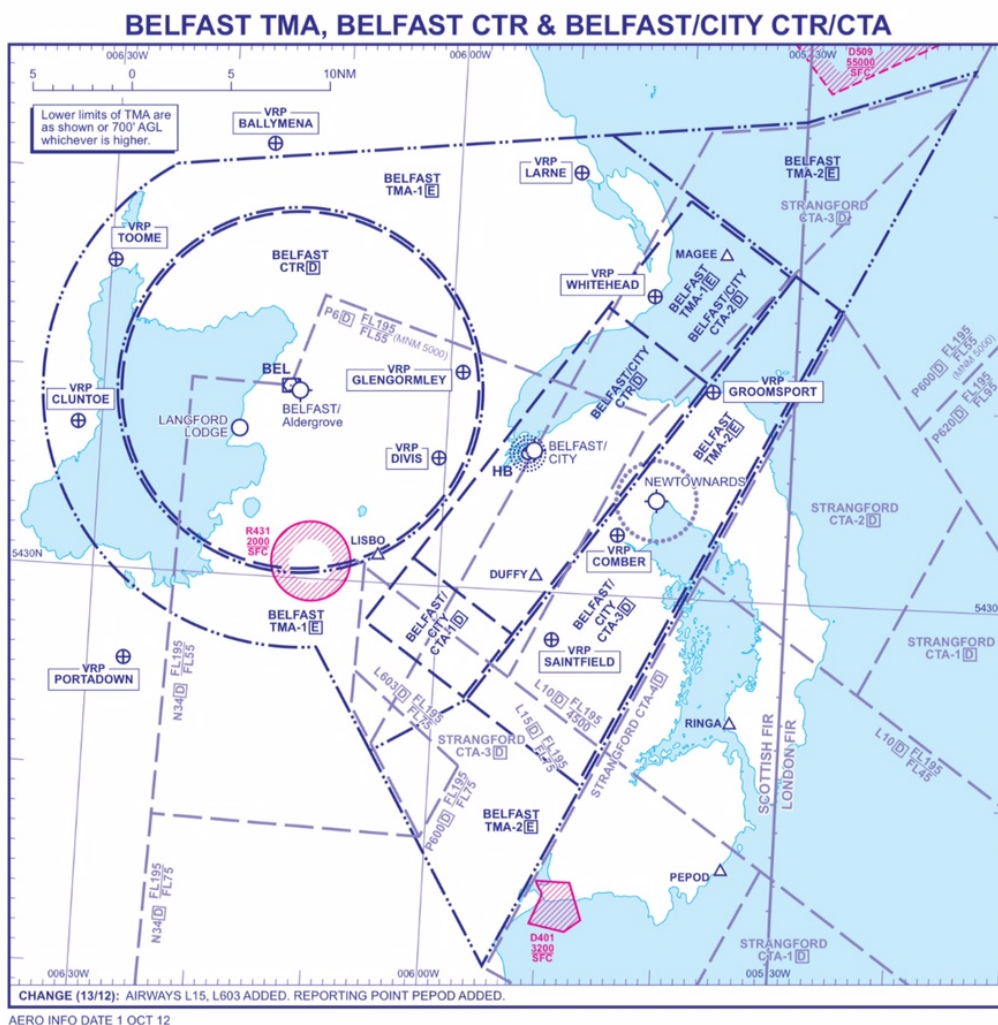
Fig 3

The extract below in *italics* is guidance material produced by the unit, to try to highlight some of salient points relating to the airspace. It gives some flavour of the complexity.

INTRODUCTION

The Belfast TMA is a very complex piece of airspace in the UK in relation to Class E.

On the face of it by initially looking at the airspace it appears simple, however on further examination the flaws are numerous.



ATS AIRSPACE VERTICAL LIMITS Controlled airspace with an upper vertical limit of FL195 and above is not shown.			
BELFAST	FL105	BELFAST/CITY	FL105
CTR [D]	SFC	CTR [D]	2000
			SFC
		CTA-1 [D]	2000
			1500
		CTA-2 [D]	2000
			1500
		CTA-3 [D]	3500
			2000
		BELFAST	FL105
		TMA-1 [E]	2000*
		TMA-2 [E]	FL105
			3500
			*or 700 AGL if higher
		STRANGFORD	FL195
		CTA-1 [D]	FL75
		CTA-2 [D]	FL195
			3500
		CTA-3 [D]	FL195
			FL105
		CTA-4 [D]	FL195
			FL55
LATERAL LIMITS			
See AD 2-EGAA 2.17	See AD 2-EGAC 2.17	See Belfast TMA ENR 2.1	See Strangford CTA ENR 2.1

CTRs

- EGAA SFC – FL105 [D]
- EGAC is SFC – 2000' [D]

CTA portions of EGAC airspace

- *CTA-1 and CTA-2 1500'-2000' [D]*
- *CTA-3 2000' to 3500' [D]*

Outwith this there is the CLASS [E]

- *TMA – 1 2000 (or 700'agl whichever is the higher) to FL105*
- *TMA-2 to the southeast of 3500' to FL105.*

Above a portion of TMA-1 and TMA-2 lies the Strangford CTA-3 [D] which exists from FL105-FL195

To the north of RINGA exists Strangford CTA-2 [D] 3500' – FL195.

Strangford CTA-1 exists as two 'fillets' either side of the airway complex southeast NELBO/RINGA/PEPOD FL75-FL195 [D].

Strangford CTA-4 exists in the trapezoids over RINGA and PEPOD FL55-FL195, however in the trapezoid within which RINGA is situated this becomes a FL45 base due to the airway L10 [D].

Replacement of Class F Airspace in the UK FIRs

The discussions arising from the issue of SI 2014/04 Replacement of Class F Airspace in the UK FIRs and the potential impact on the units in the Belfast TMA, have been the driving force behind this wider review of the current airspace arrangements.

There have been no changes from Class F to Class E airspace within the Belfast TMA, the Class E airspace had been long established prior to the changes, initiated in SI 2014/04.

It was felt by both Belfast Aldergrove and Belfast City Airports that the changes brought about by the replacement of Class F airspace, did not consider the impact this would have on this unique section of UK airspace. Although content that they complied most of the conditions for operating in Class E airspace, the new requirement to notify pilots each time they transited between Class D and Class E airspace was felt to be impractical, operationally unmanageable and constituted an adverse effect on safety.


The discussions which ensued from this situation provided the basis of this review.

Current Situation

The figures and comments above hopefully give a flavour of the complexity of the current airspace environment. Although CAA dispensation has been sought from the requirement to notify pilots of each time they transit from Class D to Class E airspace, the discussions held highlighted the challenges faced by controllers working within this environment and its suitability to safely facilitate the operations of the two Belfast airports.

As mentioned the primary concern is the complexity of the airspace, in demonstrating the potential impact of notifying pilots each time they transited from one class of airspace to another, it was clear

that on a standard approach to Belfast Aldergrove a controller would need, on certain routings, to inform the pilot up to five times, within a distance of approximately 30 miles, of airspace changes. With Class D and E airspace overlapping in many areas at varying levels, combined with the significant additional complexity that these levels can change depending on the barometric pressure, a full and comprehensive understanding of the airspace is almost impossible to achieve.



In addition to this, as mentioned at the start of the report, the lateral and vertical limits of the current airspace arrangements provide additional challenges to controllers, to keep modern high performance aircraft within the confines of controlled airspace.

Conclusion

It is evident from CAA internal email trails supplied, dating back to 2009, that there has been significant concern regarding the complexity of the airspace within the Belfast TMA area and the potential for the confusion it causes to both pilots and controllers leading to an incident, as a result of their unawareness of the lateral and vertical boundaries of Class D and E airspace.

The most practical and immediate solution, as appears to be agreed by all concerned, would be the re-classification of all existing Class E airspace within the TMA area to Class D. The same rules would then apply throughout, thus drastically simplifying the airspace instantly.

Although only one side of the story, controllers claim that it is virtually unknown to them for aircraft to operate within Class E airspace, without being in communication with them and as such felt that a change in classification would have a minimal effect on local aircraft operations.

It is felt in the current climate however, that funding for such a change would not be forthcoming from either Belfast airport. This needs careful consideration in light of the issues raised here and the potential for safety improvement.

It is not known at this time what the cost of such a change would be, where the change is purely of the classification of existing airspace, without any variation to the extent of the airspace.

Ideally a review of the suitability of the entire airspace and airspace sharing arrangements between the two airports would be of benefit. As alluded to at the start, this airspace has evolved over very many years and it is now questionable whether it is suitable for the current operations contained within it.

There are significant political and commercial factors between the two airports which may arise if a larger scale review of the airspace were to be undertaken. Whereas historically Belfast Aldergrove was once the busier airport and as such developed its role as the 'controlling authority' for the TMA, traffic is now far more evenly divided between the two. As such Belfast City airport may feel they have a legitimate claim to be the 'controlling authority' in the future.