ALL-PARTY PARLIAMENTARY GROUP ON GENERAL AVIATION (APPG GA) AIRSPACE WORKING GROUP PROGRAMME 2019

The All-Party Parliamentary Group on General Aviation (APPG GA) addresses issues that can directly or indirectly contribute to the growth and success of General Aviation in the UK. This paper describes the APPG GA Airspace Group Programme and will be amended from time to time as agreed by the Sectorial Chairman in consultation with the APPG GA core team.

CONTENTS

1. OVERVIEW

a. Airspace Policy & Strategy

Airspace is a limited national resource. The CAA works within the legal and policy framework set by Parliament and the Secretary of State to develop long-term strategies for UK airspace and consider proposed change the structure of UK airspace. The CAA has a statutory responsibility to consider "the requirements of operators and owners of all classes of aircraft".

Key airspace policy publications include;

i. The Transport Act 2000
ii. CAA air navigation directions 2001
iii. European Route Network Improvement Plan (ERNIP) - Part 3: Airspace Management Handbook - Edition November 2017
iv. UK air navigation guidance 2017 replacing the 2014 guidance
v. The General Aviation Strategy

b. Airspace Users

The primary categories of aircraft classes include Commercial Air Transport, the Military, the Emergency Services and General Aviation. General Aviation primarily comprises of sporting and recreational aircraft including balloons, paragliders, hang gliders, parachutes, microlights, helicopters, sailplanes and light aeroplanes.

c. Airspace Structure

UK airspace is structured using internationally agreed principles. It is divided into 3-dimensional blocks which are classified from class A to class G airspace.

i. <u>Unrestricted (uncontrolled) airspace</u>

In the UK, class G airspace is unrestricted (also described as uncontrolled). This means there are no restrictions other than the standardised rules of the air on:

- which aircraft can enter it
- what equipment the aircraft must carry
- the routes taken by the aircraft

Most of the UK's approximately 27,000 GA aircraft (including unregistered aircraft) and others, including the military, need access to large areas of uncontrolled airspace.

ii. Restricted (controlled) airspace

All other airspace is restricted airspace (also described as controlled airspace) intended primarily to protect scheduled airline flights in and out of major airports. Restricted airspace is designed and proposed through the Airspace Change Process, and then owned and managed by the airports or airspace service provider that proposed the airspace change.

Aircraft which fly in restricted airspace must be equipped to a certain standard and their pilots must hold certain flying qualifications. Pilots must obtain clearance from Air Traffic Control (ATC) to enter such airspace and, except in an emergency situation, they must follow ATC instructions implicitly.

In addition to being given a class, which specifies rules for flying, restricted airspace may be further defined by its 'type' depending on where it is and the function it provides.

Hereon, 'restricted' airspace is described as 'controlled'.

2. KEY ISSUES

There are a number of significant issues that need to be addressed by the APPG GA airspace group. These include;

a. Use of Airspace

I. Inefficient airspace

Airspace efficiency is defined as the number of movements per volume of airspace. Controlled airspace is not subject to co-ordinated planning. Airspace above 7000 feet is designed and co-ordinated by NATS. In the lower airspace (ie below 7000 feet), which is where most GA aircraft fly, controlled airspace is allocated by the CAA on an case by case basis as designed and proposed by the organisation that requests it. The CAA's case by case approach to airspace management does not demand scientific analyses of airspace requirements, or checks for proportionality, or first/second-order impacts. It has no coherent approach, and no clear approach to maximise the utility of a scarce resource and as a result has given rise to an entire patch-work of sub-optimal airspace blocks.

II. Safety

The development of UK airspace has resulted in a number of minor regional airports with limited or no public transport services owning areas of inefficiently utilised controlled airspace many times larger than that required by Gatwick airport, which is one of the UK's busiest international airports. This is a major threat to GA as it reduces the uncontrolled airspace available to GA and dangerously funnels aircraft together within it into what are known as 'choke points' or pushes them close to hills or over the sea. There are currently a number of proposed airspace changes that, if approved, will result in dangerous choke points, for example around Farnborough, Exeter and Oxford airfields. Increasing amounts of controlled airspace inevitably lead to a greater number of infringements, ie inadvertent unauthorised entry into the controlled airspace.

III. Anti-competitive practices

The limitations of the role of the CAA and the entirely incremental nature of individual sponsors developing uncoordinated areas of controlled airspace pose a significant threat to GA. There is no mechanism for unused controlled airspace to be returned to uncontrolled status. The CAA recently concluded that they do not have powers to change established airspace structures, regardless of whether or not they are justified. The CAA also lacks sufficient expert resources to address airspace matters.

This unsurprisingly results in large areas of the UK's airspace being unnecessarily 'owned' by airports and their shareholders and therefore unavailable for the wider public good. Allocating a scarce national resource to benefit one organisation to the cost of others that also need to generate income is anti-competitive.

In summary, the majority of GA is to all intents and purposes excluded from controlled airspace and squeezed into ever-reducing areas of class G airspace, which has a direct impact on sustainability and growth of the majority of GA operations. This raises the essential question of CAA / DfT's responsibility and accountability to modernise the network to the benefit of *all* airspace users. The whole matter needs Government intervention and, as declared in the Government GA Strategy, GA interests must be addressed equitably with other airspace users.

b. Airspace policies

The working group will finalise there policies after the publication of the Kirkhope Inquiry into Airspace in the spring. Until then the Working Group will continue the following policies.

(i) Traffic separation

Commercial aircraft under air traffic control are subjected to separation minima (ie spacing between each aircraft) based on pre-digital and GPS age navigation standards. The current separation requirements require each aircraft that is flying within controlled airspace to be surrounded by a disproportionately large volume of empty airspace. This results in huge areas of unused controlled airspace and, as previously described, generates dangerous choke points in uncontrolled airspace.

Direction is required that will establish a separation policy that takes into account current aircraft and system performance capabilities resulting in less controlled airspace and greater efficiency.

(ii) Airspace change process

The UK historic airspace change process (ACP) has resulted in unbalanced and highly inefficient outcomes that benefit commercial operators at the cost of others including GA. The process is heavily weighted in favour of a rich commercial applicant against GA which has very limited resources. It is crystal clear that unless all affected aviation stakeholders are involved in the very earliest stages of development of an airspace change, it is almost inevitable that the process will result in conflict, inefficiency and GA will lose out. The revised airspace change policy (CAP1616) should improve the situation going forward, as it aims in part to ensure that all affected aviation stakeholders including GA are involved in the very earliest stages of development of an airspace change. This is a very important issue; a formal review and audit process is required to ensure that GA needs are fully addressed.

c. Future Airspace Strategy

The UK's future airspace strategy (FAS) is the blueprint for our future airspace; the Civil Aviation Authority has a key role in ensuring the benefits are realised but from all parts of the aviation industry, from NATS to airlines and airports and from GA to the military, engagement is required. To

ensure GA engagement occurs, the FAS VFR Implementation Group (FASVIG) was formed by the GA community and has received FAS programme funding.

However, the FAS programme funding is controlled by the airlines and the airspace service providers whose interests conflict with GA's. As a result, FASVIG finds it difficult to get funding for work supporting the General Aviation users, whom it was set up specifically to support. As a result, FAS is not developing with an appropriate balance between commercial and other stakeholder needs. Therefore the needs of the majority of GA are not being addressed by FAS. There is an obvious urgent need to have a policy for the design and use of the UK's lower airspace (below 7000').

A FAS programme that facilitates GA subject matter expert sustained and meaningful involvement and engagement should result in GA needs being addressed. The governance of FAS should be reviewed to ensure that a balanced and equitable approach is taken to the needs of GA and funding of developments supporting their needs.

d. Electronic Conspicuity

As aviation grows, Electronic Conspicuity (EC) has a significant potential role in helping to maintain safety, for reducing airspace restrictions and increasing UK airspace efficiency. Current EC technology is decades old, has limited functionality, and systems cannot cope with the volumes even if adopted by all airspace users. Research is being carried out by a number of organisations to identify a reliably workable solution that can electronically integrate all airspace users while addressing their various needs including significantly improved access to airspace. It is vitally important that these means are fully researched and understood by competent people to avoid fatally-flawed solutions being imposed.

There is a pressing need to remove EC regulatory impediments to progress and to clarify expectations. Ensuring the environment is right will attract companies to enter the EC market and encourage development of low cost equipment that GA pilots and owners will adopt because of a user-benefit led approach rather than through regulation. EC has the potential to enable a "new world" with completely different airspace constructs. The UK should take the lead by stopping the proliferation of old world airspace and instead adopt a framework fit for the future.

e. Learning from others

Some years ago, GA in Germany was suffering from similar airspace issues as currently experienced in the UK. A change in leadership of the airspace regulator and a willing GA community resulted in a number of changes that can also address airspace related problems currently experienced in the UK. For example, in Germany;

I.   Within the default class G airspace and above that the default class E airspace, other controlled airspace dimensions are significantly smaller than those in the UK. This controlled airspace is applied on a sliding scale of restriction and size dependent on number of movements (and therefore the level of risk). If the same approach was taken in the UK, the total volume of controlled airspace could be significantly reduced.

II. Defined flight information services and air traffic control are established that significantly increased efficiency, reduced costs (a flight information officer costs are 50% of those of a controller) and limit infringements of controlled airspace; Germany with a larger GA fleet experiences 20% of the number of airspace infringements experienced in the UK.

III. Flexible use of airspace – that is providing access under certain conditions to uncontrolled aircraft in what would otherwise normally be controlled airspace - applies to certain

categories of aircraft (for example gliders) and is effectively managed through individual air sport clubs, groups of clubs, or 'publicly' via a flight information service.

IV.   Airspace changes are agreed annually between stakeholders in a co-ordinated and planned approach.

The UK regulator and air traffic service providers must recognise, learn from and change or adapt to good practice experienced in other countries, including the USA.

3. ROLE

The APPG GA airspace group will identify airspace issues that impact on the sustainability and growth of GA, and in particular the majority of GA that requires access to uncontrolled airspace. In doing so, the APPG GA airspace group expects to;

1) Consider the needs of all aspects of aviation
2) Liaise with all elements of General Aviation to ensure a balanced view is delivered to Government
3) Ensure that the Department of Transport and Parliamentarians are clear about problems GA is facing and suggested solutions
4) Identify research to aid Parliament in considering issues related to GA and airspace, including concerns around controlled airspace
5) Consider the terms of reference for holding Parliamentary Inquires into the airspace threat to General Aviation
6) Promote forward looking developments in a) technology and products and b) in structure and regulation of controlled airspace which give viable access for all of aviation.

4. GOVERNANCE

The APPG GA airspace group provides the leadership team with support on airspace matters. The APPG GA airspace group has an appointed Parliamentarian, an appointed sectorial chairman and co-opted subject matter expert advisors. The APPG GA airspace sectorial chairman reports to the APPG GA leadership team.
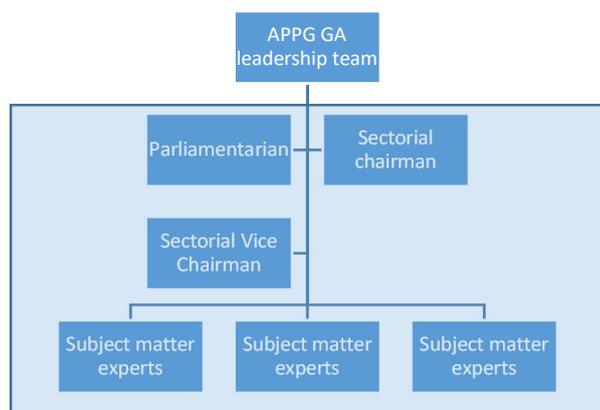
The APPG GA airspace group will communicate by email, phone and occasional meetings. The sectorial chairman will periodically report to the leadership team as agreed from time to time.

The APPG GA airspace group includes a Parliamentarian, Sectorial Chairman and Vice Sectorial Chairman (TBN) and a number of subject matter experts who are available from time to time to advise on a variety of issues.

Name	Position
Lord Kirkhope of Harrogate	Parliamentary Chair
Pete Stratten	Chair
Matthew Bolshaw	
John Brady	
Byron Davies	
Roger Hopkinson	
Brendan Kelly	
Keith Vinning	
Neil MacLennan	

5. WORK PROGRAMME

During 2019 and 2020, the APPG GA airspace group will;

a. Identify specific airspace issues with supporting evidence
b. Propose solutions to those issues
c. Engage effectively with Parliamentarians (under an agreed lobby plan) to achieve results, including;
   I. Debate concerns on the floor of both houses
   II. Table questions for oral or written answer
   III. Table motions in the House of Commons
   IV. Table and debate amendments to bills
   V. Suggest attendees at select committees
d. Provide periodic updates to inform and advise Parliamentarians and others of progress or otherwise
e. Demand meetings with ministers (do not deal with officials, except by agreement with the relevant minister)
f. Demand meetings with regulators and policymakers

6. COMMUNICATIONS, SOCIAL MEDIA AND PRESS

The APPG GA airspace group work will be communicated as effectively as possible through the APPG GA core team. The APPG GA website will reflect the importance of the APPG's airspace work and highlight the main issues.

7. TIME TABLE

Jan	Feb	Mar	Apr	May	Jun
Respond to Aviation 2050 Green Paper 1x Kirkhope Inquiry Hearing	2x Kirkhope Inquiry Hearing	1x Kirkhope Inquiry Hearing	Kirkhope Inquiry Recommendations to be published. Draft legislation to be considered	Meeting to be sought with Minister to discuss Kirkhope Inquiry findings Backbench Business Debate to be sought on Airspace deregulation	Private Members Bills tabling
Jul	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Summer Recess	Summer Recess	Tbc	Tbc	Tbc	Tbc