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Refocusing the UK Airspace Modernisation Strategy

The departure from the European Union Aviation Safety Agency (EASA) and the reduction in flight movements due to the pandemic present the UK with a once in a lifetime opportunity to fully address the outdated UK airspace, its regulation, procedures and supporting technology.

The Department for Transport (DfT) and the Civil Aviation Authority (CAA) developed a shared objective for modernising UK airspace up to 2040. Their Airspace Modernisation Strategy (AMS) is detailed in the CAA's CAP1711 document, itemising 15 specific initiatives and the governance and procedures to implement them. The AMS is a step in the right direction, but the present strategy imposes mainly minor or localised modifications based on legacy technology and infrastructure that continues the piecemeal approach of airspace infrastructure modernisation of the last 70 years. The CAA's CAP2016 AMS progress report published in December 2020 details how the work on the AMS has been affected by the COVID-19 pandemic, recognising issues and delays in the majority of the 15 initiatives.

In order to be at the forefront of aviation worldwide, the UK needs an ambitious vision of a safe, modern, integrated, efficient, environmentally friendly and cost-effective airspace structure that uses current and future technology to meet the needs of all airspace stakeholders. The undersigned seek active participation in the development of a refocused AMS to implement a holistic airspace solution that will fully support aviation, the wider UK economy and the environment.

1. Holistic UK Airspace Strategy

The UK requires a holistic airspace strategy that addresses the operations and needs of all Airspace Users (AUs) in upper, terminal, lower and uncontrolled airspace. A review and revision of the lower airspace, used by commercial manned and Unmanned Aircraft Systems (UAS), General Aviation (GA), military aircraft, helicopters, gliders, balloons and training flights, should be an important part of that strategy. It should also support improved airspace access for all AUs. A simplification and reduction of the classes of airspace in the UK should be considered as a means of achieving a more efficient and, consequently, more environmentally friendly airspace. Ultimately, airspace changes need to be introduced as part of an overarching strategy and vision that best satisfies the needs of all stakeholders throughout UK airspace.

2. Enhanced Safety

The UK airspace of the future should provide enhanced situational awareness to all operational stakeholders through the deployment of modern surveillance technology and the integration of flight information from different sources, creating a shared air traffic "picture" which will enhance the safety of operations. Modern and integrated air and ground systems will create an airspace environment which improves aviation's safety, efficiency and environmental performance throughout UK airspace. The AMS should make progress in this area a top priority.



3. Modernisation of Operations

The majority of air operations in UK airspace are based on legacy aircraft and surveillance capabilities that do not exploit today's technology. The efficiency of UK airspace can be maximised by exploiting the accuracy of modern aircraft navigation and surveillance systems. The AMS must seek to implement a harmonised and raised Transition Altitude (TA), revise aircraft separation standards and develop a True North reference system. It should also continue to accelerate the implementation of Global Navigation Satellite System (GNSS)-based approaches, providing appropriate support and increased funding.

4. Integrated Air Traffic Management

The UK Air Traffic Management (ATM) system does not operate in an integrated manner. It includes a large number of systems from different Air Navigation Service Providers (ANSPs) and Air Traffic Control (ATC) units which are not interconnected nor harmonised. That fragmentation makes the process of flying in UK airspace unnecessarily complex compared to other countries and increases the workload of all operational stakeholders. The problem is further exacerbated by the airspace density and complexity in the UK. The AMS must review the UK ATM system with the aim of integrating systems and procedures to provide a seamless flying experience for AUs and a harmonised means of managing flights in UK airspace.

5. Integration of Unmanned Air System Operations

The present model of segregated Beyond Visual Line of Sight (BVLOS) UAS operations does not satisfy the needs of the unmanned sector and imposes significant barriers to other AUs. In the long term, segregation will severely constrain UAS commercial operations and sector growth and continue to impose ever-increasing barriers to other AUs. The AMS should support the full integration of BVLOS UAS and manned aircraft operations and the CAA should establish clear requirements for BVLOS UAS to match manned aircraft safety and operating standards.

The **Association of UK Flight Information Service Officers (AUKFISO)** consists of 35 members units and provides an industry platform for FIS units around the UK. Contact: office@aukfiso.com

The **British Air Line Pilots' Association (BALPA)** is the professional association representing over 10,000 of the UK's commercial airlines and helicopter pilots. Contact: balpa@balpa.org

The **General Aviation (GA) Alliance** is an independent partnership of organisations representing 72,000 members from GA and sports and recreational aviation interests. Contact: contactus@gaalliance.org.uk

The **Guild of Air Traffic Control Officers (GATCO)** is a UK-wide professional organisation representing over 1,600 civil and military air traffic controllers and ATM professionals. Contact: info@gatco.org

The **Honourable Company of Air Pilots** is a City of London Livery Company representing over 1,900 UK and overseas air pilots and navigators across all sectors of aviation. Contact: office@airpilots.org