



Department
for Transport



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Maritime Ensign

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Regulatory Horizons Council Report on the regulation of drones: government response

Thank you for producing this report on the regulation of drones and for your recommendations to government. It was a timely production just as we were consulting on the future of transport regulatory review. It was good to note that overall, the majority of the recommendations were broadly in line with the ongoing work of the Department and the Civil Aviation Authority (CAA).

In May 2022, government published the '[Flightpath to the future](#)' – a strategic framework for the aviation sector and vision for a modern, innovative and efficient sector over the next 10 years. The strategy set out a ten-point plan for the future of the sector, establishing clear priorities to ensure the UK retains one of the strongest aviation sectors in the world. One of the key priorities is to capture the potential from new technology and its uses, including drones. Benefitting from new regulatory freedoms outside the EU, our vision is to be one of the first in the world to routinely use new aircraft to provide new and improved low carbon local and regional air mobility for goods and people.

Government will help drive the sector forward by setting direction, developing the regulatory framework and supporting collaboration and the co-creation of new solutions for the sector. We announced in the

Flightpath to the Future that we will set direction by developing and delivering a Future of Flight Plan to set specific milestones to address the key challenges. Recognising that we need multiple perspectives to deliver a coordinated, effective approach, and adapt to the changing technology and innovation landscape we will establish the Future of Flight Industry Group to develop the plan and build on existing work. Government has also published the drones ambition statement setting out how we will build on our existing capabilities, smooth the regulatory path and support the UK's innovators to thrive and so maximise the impact of drones on the UK economy and society.

Government has been developing the regulatory framework to support the sector to grow and has provided additional funding to the CAA to increase their capacity to do so. Building on the Air Traffic Management and Unmanned Aircraft Act 2021 the government consulted on The Future of Transport Regulatory Review: Future of Flight in 2021 to assist in developing a flexible legislative and regulatory framework to bring new aviation technology to market in a safe, secure and sustainable way. A response is due to be published by the end of Summer 2022. The consultation covered issues of current regulatory frameworks for new aviation technology and aims to identify legislative gaps in new aviation technology, such as beyond visual line of sight drones, advanced air mobility and air traffic management. Additionally, the CAA have consulted on product requirements for unmanned aircraft and recommended changes to the regulations – the CAA's response to the consultation was published in June [Extending the provisions for Legacy and Transitional Category UAS CAP 2367](#). We expect to continue developing regulations at pace in response to the rapid progress of industry.

This work will feed into the Future of Flight Plan and will enable the CAA and government to develop clear pathways and regulations for drones in the UK across the open, specific and certified categories.

Moving on to the recommendations from the Regulatory Horizons Council (RHC) and the government's responses:

RHC1: The government should undertake a review of the capacity of the CAA to cope with increasing applications for drone use. This should include:

- a. reviewing the approach to provide the requisite clearances required to undertake drone operations, particularly the appraisal of Operational Safety Cases and renewals.

- b. the government should undertake a review of the funding model of the CAA to recognise the need to encourage new technology while regulating the safety of existing technology.

Response 1: Accept - The CAA has a critical role to play in supporting delivery through its regulatory activities and working closely with innovators. As a new part of the aviation industry there is a continuous development process not only in the underlying legislation and regulation, but how the regulator fulfils its duties. My department is providing additional funding to the CAA to scale up support for new aviation technology and bring about the necessary changes within the CAA to ensure they are equipped to deliver as a regulator now and in the future.

The funding model of the CAA is regularly reviewed, the CAA over its decades of operation has overseen enormous changes in the aviation sector and is one of the key reasons the UK has a world leading record in adopting new technology in aviation. As part of the regular governance of the CAA by the Department and their own internal governance the funding model of the CAA is currently being reviewed and proposals are being developed to create a simpler, more transparent and equitable funding model that can grow its role in incubating future novel technology and new actors in the regulatory system. This is being done alongside the ongoing development of drones policy by the Department and the charging model for the regulation of drones is one of the key areas of focus as part of the development of the overall drones ecosystem.

RHC2: The CAA should find ways to approve:

- i) BVLOS operations more rapidly; and
- ii) Multiple drones per operator.

Response 2: Accept – The CAA have approved both types of operations which are possible within the current regulations and we expect as operators mature and regulations adapt that approvals will become easier and faster. In order to support this further, as explained above, my department is providing additional funding to the CAA to scale up support for new aviation technology and bring about the necessary changes within the CAA to ensure they are equipped to deliver this substantial programme of work. The CAA is currently investigating the challenges for operating BVLOS in non-segregated airspace, and Sandbox testing is underway with current projects

exploring the use of detect and avoid systems and procedures, as well as the use of transponders and conspicuity to test airspace integration. A detect and avoid capability is central to removing reliance on temporary danger areas (TDA) for routine BVLOS flight outside of segregated airspace.

RHC3: The CAA should be tasked with developing improving its sandboxing offer, including:

- a. Empowering suitably qualified individuals to make regulatory easements for drones while overseeing an iterated sandboxing offer, thereby facilitating a greater range of innovation – included but not limited to regulatory innovation and model innovation; and
- b. The establishment of a ‘scalebox’ to explicitly provide regulatory supervisory clearance at an expedited rate to support provide supervisory support to commercialisation initiatives and companies in their growth phase, including by designating zones and times to facilitate the development of commercially realistic or market proving operations.

Response 3: Accept – We are currently considering how best to achieve this and have more transparency between the innovation and regulatory teams at CAA. However, there does need to be some degree of separation between the innovation and regulatory teams for them not to fail the regulatory independence test.

RHC4: We recommend that the Competition & Markets Authority (CMA), in collaboration with the Civil Aviation Authority, and the relevant government and industry stakeholders explore the digital platform and data issues that could arise in the emerging market of Unmanned Traffic Management (UTM) systems and the potential for these to result in persistent market power. This should build on the CMA's work and expertise on digital markets, to be taken up by the relevant regulators today to prevent this from occurring.

Response 4: Reject – The government’s proposals for Unified Traffic Management (UTM) are still to be finalised and we will be delivering these as part of the Future of Flight Plan as stated in the *Flightpath to the future*. After discussion with the Competition & Markets Authority and CAA, it was agreed that it is too early to begin these discussions, but if the need arises later, we will do so.

RHC5: The government and CAA should set out a time-bound and progressive roadmap to ending segregations of airspace between different users. For the development of drones, this should be supported by:

- a. The government should set out a plan for the acceleration of the universal adoption of electronic conspicuity by all aircraft, with a mandatory date of 1 Jan 2025 imposed, if not sooner.
- b. The introduction of permanent – or initially regularly scheduled semi-permanent – mandatory transponder zones for areas that explicitly prioritise drones. Remote and marine areas should be chosen;
- c. A geographically constrained segregated block of low level airspace where piloted aircraft do not routinely operate; and
- d. Diligent tracking of improvements in drone sense-and-avoid capabilities.

Response 5: Partially Accept – The CAA will shortly publish the refreshed [Airspace Modernisation Strategy](#) (AMS) as a focal point for CAA's broader airspace policy, including drone integration, out to 2040. Government will also support the sector in delivering the AMS to ensure that all new and current airspace users can operate and coexist safely in UK airspace.

In addition to this the government and the CAA have also been working closely on assessing the current landscape for electronic conspicuity and considering what the future approach should be on mandating electronic conspicuity and the possibility of using Transponder Mandatory Zones (TMZ) to integrate all airspace users. We will continue to engage with the sponsors for airspace change requests around the use of TMZs as part of trials addressing airspace integration and ensure that industry is made aware of the existing airspace structures that can be available to them in remote and marine areas already.

The Future of Flight Plan will help provide a clear strategy for how industry will be able to work towards developing the appropriate technology that will meet the required safety levels to allow for progress in removing the segregation requirements that are in place for some users.

RHC6: Standards play a significant role in the development of regulatory framework for drones. We understand that the CAA already contributes to specific standards setting exercises including the RTCA and ASTM

International (formerly the American Society for Testing and Materials). The increasing importance of international standards to shape the future of drones means that we would recommend increasing UK support and engagement with the relevant bodies (including the British Standards Institute and International Standards Organisation) so the UK can be better placed to influence the direction of travel for these international standards

Response 6: Accept - The government is already engaged and taking work forward with BSI through the Future Flight Challenge Programme and CAA participate in a wide range of international standards development discussions and will participate where appropriate with BSI and ISO committees.

RHC7: Utilising public engagement, the government should track privacy and noise considerations around increased drone use.

Response 7: Accept – The CPC Drones Pathfinder Catalyst Programme completed and published a public perception study. The findings were shared with the CAA. The government and CAA are taking forward work in relation to drones and noise, and there is significant work ongoing by the UKRI Future Flight Challenge into the public perception of new aviation technology and its potential uses.

RHC8: The government should set out a short compelling vision statement for drones that acts as a signal to the industry and the public.

Response 8: Accept – Government has published the Drones Ambition Statement setting out how it will develop regulatory path and vision for the sector to maximise its benefits for the UK. The government also recently published *Flightpath to the future* setting out a strategic framework for the aviation sector and vision for a modern, innovative and efficient sector over the next 10 years. The strategy set out a ten-point plan for the future of the sector, establishing clear priorities to ensure the UK retains one of the strongest aviation sectors in the world. One of the key priorities is to capture the potential from new technology and its uses, including drones. Benefitting from new regulatory freedoms outside the EU, our vision is to be one of the first in the world to routinely use new aircraft to provide new and improved low carbon local and regional air mobility for goods and people.

Government will deliver a Future of Flight Plan, building on existing work from the CPC, Future Flight, CAA, Home Office and Ministry of Defence,

along with other organisations from the Future of Flight ecosystem and will set specific milestones addressing key challenges over the next several years.

RHC9: The government should make greater use of remit letters to impart political direction and vision to the CAA. In doing so, the government may wish to recognise that the public will value some use cases more highly than others. Future remit letters should more keenly emphasise innovation, particularly commercialisation of innovative business models. Further, the CAA should report to government on how it is fulfilling that remit letter and providing those regulatory approvals, in a regular fashion.

Response 9: Accept - This is already in place; government regularly publishes priorities letters to CAA which are published alongside CAA's responses. Recent letters have emphasised supporting innovation across the full remit of CAAs work which has been recognised in CAA's strategy alongside their statutory duties and functions. It should be noted that priorities letters sit alongside the extensive engagement between CAA and the Department for Transport and where appropriate we have additional routes to provide guidance and work collaboratively with CAA.

I hope the above responses highlight that the government is taking forward work to meet the needs of the sector and that the CAA is being fully resourced to develop the regulatory requirements going forwards. Government will be taking forward the work outlined above and publishing a Future of Flight Plan in due course.

Yours sincerely,



ROBERT COURTS MP

MINISTER FOR AVIATION, MARITIME AND SECURITY