

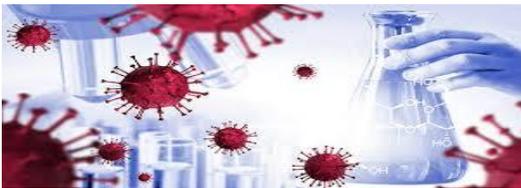
EUROPEAN & INTERNATIONAL DEVELOPMENTS

UPDATE 1 APRIL – 30 JUNE 2021



COVID-19 AVIATION DEVELOPMENTS

The CAA continues to be actively involved in international COVID-19 restart and recovery work, working closely with DfT, industry and stakeholders to ensure maximum alignment between the various activities and published guidance materials.



ICAO DEVELOPMENTS

Council Aviation Recovery Task Force

The UK continues to be active in the work of the Council Aviation Recovery Task Force ([CART](#)). The Task Force launched a review of its guidance to States and industry to better reflect recent scientific developments in relation to vaccination and to assist States wishing to incorporate vaccination into their risk-management approach. ICAO's [Roadmap to OPS Normal](#) provides guidance for transitioning back to normal operations following the lifting of temporary alleviations caused by COVID-19.

Public Health Travel Corridors iPack

To assist countries seeking to establish public health travel corridors during their COVID-19 recovery phases, ICAO has just released a new implementation package (iPack) on [Establishing a Public Health Corridor \(PHC\)](#). Composed of guidance material and other resources, the new travel corridor iPack is fully aligned with the latest recommendations issued by the ICAO Council Aviation Recovery Task Force (CART). The guidance has been developed jointly by ICAO, the World Health Organization (WHO), and other contributors in the UN aviation agency's new [Manual on Testing and Cross-border Risk Management Measures \(Doc 10152\)](#).

High-level Conference on COVID-19 2021

The ICAO Council has decided that the [High-level Conference on Covid-19](#) in October 2021 will take place virtually. The Conference will consider a broad range of issues with particular

focus on [safety, facilitation](#), and the economic impact of COVID-19 on the aviation sector. The Conference will aim to:

- Reach global consensus on a multilateral approach, supported by political will and commitments of States, to enable the safe and efficient recovery of aviation from the COVID-19 crisis.
- Build a foundation to strengthen aviation resilience making it more sustainable in the future.
- Promote and strengthen collective efforts to harmonise measures, and a risk management strategy through the implementation of the CART recommendations.

ICAO Secretariat Working Papers for the conference are now being published and the deadline for submission of all Working Papers to ICAO is 30 August. International Strategy and Engagement will manage CAA's coordination ahead of the Conference, working with colleagues across the CAA and DfT.

EUROPEAN COVID-19 DEVELOPMENTS

Lisbon Declaration on Aviation Recovery

On 3 May 2021 the EU and ECAC introduced the [Lisbon Declaration on the recovery of European aviation](#). The Declaration notes the severe impact of COVID-19 on aviation, the public's ability to travel and recognises that health and the safety of passengers, crew and the general public is the overriding priority. It emphasises the essential role of aviation in economic and social life, and its ability to contribute to rapidly distribute of vaccines. It welcomes the initiatives undertaken/planned to mitigate the negative consequences on aviation and to support its recovery, including through the [EASA/ECDC COVID-19 Aviation Health Safety Protocol](#). It welcomes the work of the ICAO CART and other international organisations to provide guidance on restart and recovery of aviation in the context of the COVID-19 pandemic.

EU Digital COVID Certificates in Aviation

The European Commission Services published a note aimed at providing [recommendations](#)

[and guidance regarding the implementation of the EU Digital COVID Certificates \(DCC\)](#)

Regulations in aviation. The note does not constitute an official Commission position but is a means of sharing recommendations and best practice and aims to contribute to eliminating unnecessary duplications which may undermine functioning of the EU DCC in the peak summer travel season. EU DCC is neither a travel document nor a pre-requirement to undertake travel but is seen as essential to restore free movement within the Union. A survey among Member States on how EU DCC will be verified in the field of aviation showed that there can be no less than 10 different combinations of checks.

European Parliament Report: Repercussions of the Pandemic on the Aviation Sector

The European Parliament has published a report that provides an overview of the [repercussions of the COVID-19 pandemic on the aviation sector](#), as well as policy recommendations to address the challenges emerging from the crisis. The key findings were:

- COVID-19 had dramatic impacts on the aviation sector, ranging from a decrease in flight traffic to a severe loss in revenue for airlines and aviation operators. This translated into job cuts and difficulties for the recovery of the sector.
- Consumers are concerned with the correct implementation of sanitation measures. To resume demand, a strategic approach to encourage travelling while making passengers feel safe is fundamental.
- Several emerging trends might affect aviation both in the mid-term and in the long-run. These mainly relate to the fast recovery of leisure trips; the potential disappearance of the hub-and-spoke model; the increasing digitalization and implementation of sanitation measures; the rise of cargo freight and the growing emphasis on sustainability goals.
- To sustain the recovery of the industry, EU policy-makers should focus on re-building passengers' confidence, supporting aviation operators and enhancing existing aviation-related policies.

UK-EU TRANSITION/RELATIONSHIP PLANNING

The CAA has been working with DfT and EASA and EU colleagues in implementing the agreement on aviation safety and air services that form part of the new the UK/EU Trade and Cooperation Agreement (TCA). On the aviation safety agreement, the CAA has been working with EASA since the start of the year in developing the implementing procedures required to put effect to its Certification and Production Annex. The first meeting of the Certification Oversight Board took place on 17 May and formally agreed the procedures which are now operational.

The CAA's EU transition programme is now focussed on completing readiness activities to the work needed to fully reflect the changes to legal statuses that took place at the end of last year and ensuring that we are effectively fulfilling the new responsibilities that we took on as a result of EU exit. Some of that transitional activity relates to the "saving provisions" within the legislation that brought the Basic Regulation on aviation safety into UK law and that define how aviation safety certificates that were valid before the end of the EU transition period have ongoing validity within the UK system.

The scope of what is covered by the saving provisions is very broad, covering practically all certificate types. They have allowed UK individuals and businesses some flexibility in adjusting to the legal changes that happened at the end of the EU transition period and reduced the risk of disruption to services supplied to UK businesses by EU service providers.

The saving provisions in different areas of regulation generally persist for up to two years after the point of transition (end Dec 2020), but some end after one year. The unwinding of the saving provisions creates a need for businesses and individuals to take action to ensure that they continue to hold the permissions that they need and for the CAA to meet an extended demand for regulatory activity in a number of key areas.

The CAA will be communicating what stakeholders will be required to do in response to these changes in the coming months and taking action to ensure that we are ready to meet any increased demand for regulatory activity when it arises. For further information: [CAA EU Exit webpage](#).

GENERAL EUROPEAN DEVELOPMENTS

Presidency of Council of EU

Slovenia took over the [Presidency of the Council](#) of the EU on 1 July. The priorities for the Slovenian Presidency [programme](#) are:

- Facilitate the EU's recovery and reinforce its resilience.
- Reflection on the future of Europe.
- Strengthening rule of law and European values.
- Increase security and stability in the European neighbourhood.



Logo of the Slovenian EU Presidency

The aviation priorities for the Slovenian Presidency will most likely focus on the aviation related environmental components of the [Fit for 55 legislative package](#) published in July 2021. This is likely to include changes in the EU Emissions Trading System (ETS) Directive, a new proposal for renewable energies use in transport, and the ReFuel EU Aviation initiative, aiming to boost the uptake of sustainable aviation fuels. Other aviation the priorities are the recovery of the sector following the COVID-19 pandemic, contribution of aviation to a green economy and the digital way ahead and aviation of the future.

Single European Sky

The Portuguese Presidency made good progress on the Single European Sky (SES) 2+ dossier. The SES initiative aims to reform the

air navigation services industry in order to make the way in which European airspace is managed more efficient. The reform also aims to help reduce aviation's environmental impact.

In June the Transport Council agreed on its position (general approach) on the proposals and their position takes account of environmental aspects, while ensuring measures are taken at the most effective level and member states' rights and responsibilities on the safety and security of their airspace under the Chicago Convention are respected.

The European Parliament published its amendments on the [Single European Sky SES2+](#) proposal. The Parliament and Council's positions will now be discussed under the Trilogue process with the Commission. It is likely that the bulk of these discussions will take place under the French Presidency of the EU from January 2022.

EU-ASEAN Air Transport Agreement

On 2 June the Association of Southeast Asian Nations (ASEAN) and the EU concluded negotiations on the ASEAN-EU Comprehensive Air Transport Agreement (AE CATA). The AE CATA is the world's first bloc-to-bloc air transport agreement. It will significantly strengthen air connectivity between ASEAN and Europe and assist with economic development among states of ASEAN and the EU.

Under the agreement, airlines of ASEAN and the EU will have greater opportunities to operate passenger and cargo services between and beyond both regions. Airlines of ASEAN and the EU will be able to fly any number of services between both regions. In addition, airlines will be able to fly up to 14 weekly passenger services, and any number of cargo services via and beyond to any third country.

SAFETY

EU Air Safety List

In June the European Commission updated the [EU Air Safety List](#) - the list of airlines that are subject to an operating ban or operational restrictions within the European Union as they do not meet international safety standards. There were no new proposals for lifting or inclusion into the EU Air Safety List, but there

were a number of technical adaptations. Carriers which no longer exist were removed to include the new air carriers recently certified by National Aviation Authorities from countries that are subject to a ban. A total of 103 airlines are banned from EU skies:

- 97 airlines certified in 16 states, due to inadequate safety oversight by the aviation authorities from these states.
- Six individual airlines, based on serious safety deficiencies that have been identified.
- An additional three airlines are subject to operational restrictions and can only fly to the EU with specific aircraft types.

RAISING GLOBAL AVIATION STANDARDS

This section covers the CAA's efforts to raise global aviation standards through the work of CAA International (CAAI). CAAI is the technical advisory arm of the International Group within the UK Civil Aviation Authority.

DfT Aviation Skills Retention Platform (ASRP)
DfT's Aviation Skills Retention Platform (ASRP) was launched this year to support skills retention within the UK aviation industry. It is designed to help individuals showcase their experience and develop their expertise while helping businesses find the skills they need – aiding redeployment and recruitment, skills retention and development activities across the aviation sector.

Aviation professionals currently unemployed who worked within the UK aviation sector before the pandemic will be eligible for

enrolment, with course placements funded by the DfT. CAAI is offering 16 virtual and e-Learning course titles, covering multiple areas of aviation regulation, oversight and compliance, including safety risk management, air law, just culture and industry recovery.

ICAO and CAAI Security Culture Training

In support of ICAO's [Year of Security Culture](#), ICAO and CAAI have announced an [Introduction to Security Culture](#) course. By examining the experience and lessons learnt in safety culture, the course is designed to highlight the importance of security culture and help participants understand the elements and practical tools for benchmarking, enhancing and maintaining a positive security culture.

FlyZero Project and CAAI Partnership

[Aerospace Technology Institute's FlyZero Project](#) is backed by the Department for Business, Energy & Industrial Strategy. It aims to realise zero-carbon emission commercial aviation by the end of the decade. Over the coming months, CAAI and FlyZero will investigate the regulatory landscape needed for the next generation of zero-carbon emission aircraft technologies and their safe operation, and how the UK can play a leading role.

SECURITY & CYBER

Cybercrime in European Aviation

Eurocontrol published a [Think Paper](#) showing how the industry is increasingly exposed to rising levels of risk, as cybercriminals look to exploit new vulnerabilities amidst the worst financial crisis aviation has ever experienced. The paper reveals that on top of a big 3 crimewave of fake websites, data theft and phishing attacks, every week a ransomware attack hits an aviation actor somewhere across the globe, disrupting business continuity and capable of bringing operations to a grinding halt.



Airlines were the target of 61% of all detected aviation cyber-attacks in 2020 and losing around \$1 billion a year from fraudulent websites alone. Also highlighted is the growing threat posed by state-sponsored or highly organised crime syndicates, malign actors capable of conducting large-scale targeted intrusions that aim at massive disruption as much as financial gain: although no impact on flight safety has yet been reported.

Efforts to counter the growing cyber-threat must include organisations avoiding exposing themselves to additional risk by failing to apply systematically basic IT security controls, and to pay increased attention to new threat vectors. While the European aviation community has upped its detection capabilities and improved its reporting culture, it is emphasised that continued cybersecurity advocacy by EUROCONTROL's [European Air Traffic Management Computer Emergency Response Team](#) service and other partners is key to foiling fraudsters, and will continue to

save European aviation stakeholders millions every year.

EASA Opinion on Cyber Rule

On 11 June EASA published an [opinion](#) on their wide-ranging cyber rule (Part IS). The Opinion's objective is to contribute to the protection of the aviation system from information security risks, and to make it more resilient to information security events and incidents. The provisions shall apply to competent authorities and organisations in all aviation domains. The UK has already started a Rule Making task for this activity.

Restarting Security Operation

The security implications of restarting operations with the gradual easing of travel restrictions were discussed at the ECAC Security Forum in May. The challenges for security operations notably due to staff returning after long periods of inactivity; the impact on security culture; the insider threat and training to implement adapted security measures were among the issues debated.

AI Techniques Impact on Aviation Security

ECAC and EU held a workshop on 20-21 May on the impact of Artificial Intelligence (AI) techniques on aviation security. Presentations including by UK DfT supported the opportunities AI could bring to aviation security. Participants also agreed to focus in the future on four different aspects to develop AI in aviation security:

- Concept of operations: how to use AI algorithms in aviation security.
- Testing environment: approval/certification to ensure the AI algorithm is safe and secure and works perfectly when installed in airports
- Regulatory environment: promote trials at operational level by airports and also adequately manage the potential risks and vulnerabilities to prevent unwanted outcomes.
- Data used to train AI algorithm: ensuring the data used enables AI to work in Europe.

ENVIRONMENTAL MATTERS

State Action Plans to address CO2 Emissions from Aviation

The draft revised 2021 edition of the [ECAC/EU guidelines](#) for European action plans was presented at an ECAC seminar to the European Focal Points and to experts from [European Aviation and Environment Group \(EAEG\)](#). The participants noted proposed updates included an adjusted European baseline scenario up to 2050 and a revised description of measures implemented collectively in Europe.



The seminar, delivered in the framework of the ECAC Environment Forum, was in close cooperation with ICAO EUR/NAT and provided clarification to support ECAC Member States in updating the common and national sections of their respective action plans in accordance with ICAO guidance material.

Green Single European Sky

In May Eurocontrol and EASA published a co-authored non-paper which proposes five pillars that, if implemented together, would allow the European air traffic management (ATM) system to contribute its utmost to the EU's climate-neutrality ambition by enabling aircraft and airspace users to further reduce their carbon footprint. The [five pillars for a Green Single European Sky](#) propose:

- Re-focused green objective: SES high level objectives should reflect the new political priorities introducing climate objectives fostering CO2 reduction and environmental objectives, notably reduction of noise and air pollution.
- Green performance: there should be green (environment and climate) performance targets for the Air Navigation Service Providers and the Eurocontrol Network Manager offering green trajectories to airspace users.
- Green charging: use of the SES charging scheme as a tool to provide incentives to encourage efficient flight trajectories.
- Green digitalisation: boost the timely deployment of digital technologies and services by relevant operational stakeholders guided by the Eurocontrol

Network Manager in the SESAR deployment framework under the supervision of EASA.

- Green oversight: Under the supervision of the European Commission install a single monitoring and reporting system for the Single European Sky. This could leverage the existing mechanisms involving national authorities, EASA and PRB, and entities guiding the SESAR innovation cycle

Eurocontrol Paper: Flying the Perfect Green

Eurocontrol using its unique aviation data and analysis has published a thought-provoking Think Paper – [Flying the Perfect Green](#) - which takes the reader on a journey, looking at every aspect of a flight before, during and immediately after to identify the main opportunities to improve aviation sustainability at each stage, the challenges that need to be tackled to get closer to that ‘perfect green flight’, and what we can do – now and in the medium term – to make that happen.

Eurocontrol Paper: Plane & Train – Getting the Balance Right

Eurocontrol has published a Think Paper – [Plane and train: Getting the balance right](#) – which considers how the transport sector can reduce its emissions most effectively to achieve carbon neutrality by 2050, and what role can air and rail play.

Airports are now starting to make SAF more available and this will be vital if the industry is to achieve the targets expected to be agreed as part of the EU’s [ReFuelEU](#) initiative. Work has also begun on how hydrogen can be stored at airports.

Airports are doing a great deal to reduce their own emissions, with more than 90 airports set to achieve Net Zero emissions by 2030. Electric vehicles are being introduced for passenger transport, baggage handling, aircraft pushback and even de-icing, and the European Airport Industry is on target to achieve Net Zero by 2050 at the latest.

CONSUMERS/ECONOMICS

Air Passenger Rights during the Pandemic

In June the European Court of Auditors (ECA) published a [report on EU air passenger rights during the pandemic](#). The ECA analysed how the COVID-19 crisis affected air passenger rights. While focusing on the Commission’s role, it assessed whether the right of access to information and the right to reimbursement for air passengers had been safeguarded. It also examined how airlines were supported with

State aid, whether this aid was linked to the protection of passenger rights, and whether the deficiencies which existed before the COVID-19 pandemic persisted or were exacerbated by the crisis.

The report will inform the European Commission as it works towards simplifying and strengthening the legal framework, making it more consistent, and better adapted, to ensure the protection of passenger rights in the EU.

AIR TRAFFIC MANAGEMENT

Demonstrating Space-enabled ATC

Plans are underway by SESAR members and partners to demonstrate the feasibility of using low-orbit satellites to provide voice communications to manage aircraft in oceanic regions of the world.



The [project](#) aims to show how space-based communications navigation and surveillance technologies can help optimise air traffic while reducing the carbon footprint and maintaining safety levels.

The SESAR JU large-scale demonstration, VOICE (“Reduced separations and improved efficiency based on Vhf cOmmuniCations over LEO satEllites”), will over the next two years, demonstrate how ATM can benefit from low earth orbit satellites – a category of satellites which is low cost and requires the lowest amount of energy for placement, while providing high bandwidth and low communication latency. Specifically, they will

show that by using satellite-based VHF systems, controllers can communicate with aircraft in oceanic and remote airspace at the exact same rate of frequency as with aircraft in continental airspace. In doing so, using space-based ADS-B for surveillance, controllers will be able to reduce the minimum separation between aircraft, which will help to optimise traffic and reduce CO2 emissions without compromising safety.

Study on Societal Acceptance of Urban Air Mobility in Europe

In May EASA published results of the first study conducted in the [EU on Urban Air Mobility](#).

Based on thorough research, literature review, local market analysis, surveys and interviews, the study examined the attitudes, expectations and concerns of EU citizens with respect to UAM and revealed interesting insights, some unexpected. The Study showed that the majority of those questioned broadly welcome the prospect of services such as air taxis, air ambulances and drone deliveries but have concerns about potential issues such as safety, security, noise and the impact on wildlife.

Implementing UAS Traffic Management Systems in Europe

In April the European Commission adopted the U-space package. The regulations introduce new services for drone operators, allowing them to carry out more complex and longer-distance

operations, particularly in congested, low-level airspace (below 120m) and when out of sight.

ECAC Member States now have the task of implementing U-space regulatory procedures so drone operators can build their businesses in a seamless European market. Some States, including the UK, have already begun the process but many others have been waiting for the regulations to be enacted before starting the U-space implementation programmes.

Further work will be needed to support the regulator in determining validation and certification of U-space service providers (USSPs) and defining acceptable means of compliance for national regulators in certifying U-space areas.



Eurocontrol is playing a pivotal role in supporting States introduce U-space concepts and enabling industry to take the next steps to developing commercial drone operations at scale by helping to support the creation of standards and regulations which will underpin a seamless European market.

INNOVATION

Changes ahead in Aviation

Eurocontrol scenarios indicate that the number of flights in Europe may not recover to 2019 levels in 2024. It is expected when aviation recovers it will not be the same. Changes are happening in every part of the sector. Manufacturers are focusing on the latest, most fuel-efficient models. COVID-19 has also prompted a series of changes to the travelling experience. Airlines have become much more responsive and agile – adjusting routes as a result of evolving demand. At airports, COVID-19 has resulted in more spacing and, potentially, less capacity. Also there is an acceleration of the trend towards contactless progression through the airport with fewer passengers checking-in and more technology such as facial recognition being used to ease the traveller's journey and to minimise bottlenecks.

Immigration/verification of health status may cause delays, so there is a real need and desire to digitalise this such as the use of digital certificates such as the EU Digital COVID Certificate or the IATA Travel Pass.

Other changes include evolving technology. ATM must respond to and embrace changes such as the growing capabilities and use of Remote Towers, and new aircraft types: drones, urban air taxis, very high-altitude aircraft and airships for short/ medium range passenger travel. Technology can also enable new ways of working within ATM such as rapid increase in the availability of data and Artificial Intelligence.

Sustainability changes such as more fuel-efficient aircraft, including electric and hydrogen-powered. For current aircraft, aircraft and engine manufacturers are making the use

of Sustainable Aviation Fuel (SAF) possible in ever greater proportions.

There has been a sharp rise in calls to shift from air to rail, especially for travel below 1,000 km, although indications are that rail cannot effectively substitute for air as transportation decarbonisation is more complex than simply planning to shift to rail would achieve only limited emissions savings while generating a range of drawbacks including a high total cost; a long lead time, resulting in new rail lines potentially entering into operation after aviation decarbonisation has started to deliver huge gains from SAF use and innovative propulsion technologies; and entailing significant economic and environmental downsides without being able to match the connectivity air provides. Multimodal solutions that combine air and rail are highly attractive in terms of optimising sustainability and improving connectivity.

UAS – ‘Shaping the Future of our skies’

A special edition of ECAC News is devoted to the [innovation and growth of unmanned aircraft systems](#) (UAS). Included are articles from the CAA’s Head of Aviation Security Regulation, Phil Dykins, on: ‘Drone incursions at airports – getting the response right’, and the Assistant Director Communications, Jonathan Nicholson

on ‘Getting public support – the key to the future of drones in urban areas’.

Hydrogen-powered aircraft the future?

Hydrogen-powered aircraft produce zero CO₂ emissions and, depending on the technology used, can substantially reduce or even eliminate air pollutants such as nitrogen oxide, as well as helping prevent contrail formation.

Airbus announced in 2020 that zero-emission commercial aircraft based on hydrogen could enter into service by 2035, and plans are underway to make the region around Parisian airports into ‘hydrogen hubs’. In addition to zero CO₂ emissions Hydrogen aircraft have demonstrated a 30-50 % reduction in impacts from contrail and cirrus formation, compared to kerosene aircraft, according to a study released by the [Clean Sky 2 and Fuel Cells & Hydrogen 2 Joint Undertakings](#). The study estimates that hydrogen combustion could reduce climate impact in flight by 50-75%, and with fuel-cell technology by 75-90%. Hydrogen is an important part of the solution to meet the 2050 climate neutrality goal of the [European Green Deal](#), with the aim to decarbonise hydrogen production using mainly wind and solar energy and to expand its use in sectors where it can replace fossil fuels.

ICAO

New Sec Gen

Juan Carlos Salazar has been selected as new ICAO Secretary General for three years from 1 August 2021. For the least 2 years Mr Salazar has been DGCA Colombia at Aerocivil, a complex civil aviation organization with more than 3,100 employees and 12 trade unions. He oversees a network of 72 public airports and of the sole air navigation service provider in a country that serves as a key hub for air routes in Latin America. He has also served as Chief Executive Officer of the Colombian Civil Aviation Organisation and as Senior Advisor to the Civil Aviation Authority of the United Arab Emirates.

ICAO Industry Consultative Forum (ICF)

The inaugural ICF meeting took place in late June with 19 CEOs from across industry including those of Heathrow, Changi and Toronto airports, Airbus, Boeing, Dassault and Rolls Royce. CEOs set out their thoughts on future challenges and opportunities and their expectations of ICAO. Future ICFs will focus

on specific themes raised at this event. The consistent theme was that ICAO’s focus had to be aviation restart and recovery from COVID and on the other existential threat to the industry - decarbonisation. ICAO was urged to work at pace taking a leadership role in meeting the need for wide collaboration and the rapid generation of flexible, performance-based global standards that would provide the global market needed to give industry the confidence to invest in for example sustainable aviation fuels or in electric or hydrogen propulsion technologies.

Streaming ICAO briefings

Recordings of some informal briefings to the [ICAO Council](#) will soon be made available on [ICAO TV](#). The initial list includes briefings on the International Aviation Trust Framework; Support and Capacity-building for greening aviation and The Smart Vaccination Certificate.

International Strategy and Engagement
International Group
August 2021