

# EUROPEAN & INTERNATIONAL DEVELOPMENTS

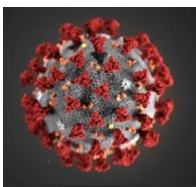
## UPDATE 1 OCTOBER – 31 DECEMBER 2020



### COVID-19 AVIATION DEVELOPMENTS

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

#### ICAO



ICAO is working with States (including extensively with the UK) and other stakeholders to assist the international aviation system recover from the COVID-19 pandemic.

#### COVID-19 Aviation Recovery Task Force

In support of international civilian aviation's recovery from the COVID-19 pandemic, the Council Aviation Recovery Task Force ([CART](#)) has updated their guidance to States. The guidance is contained within 3 documents: a [Recovery Report](#), [Take-Off guidance](#) for international aviation focusing primarily on health, safety, and security of the travelling public and a [Manual on Testing and Cross-border Risk Management Measures](#).

#### COVID-19 Response and Recovery Implementation Centre (CRRIC)

Only available via the ICAO Secure Portal, [CRRIC](#) provides information and tools to assist implementation support, coordination, monitoring and reporting.

#### Public Health Corridor (PHC) Concept

Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation [CAPSCA](#) is an ICAO programme supported by the WHO. CAPSCA has developed the risk-based [Public Health Corridor Concept in support of the](#) resumption of the international aviation system.

#### Global Implementation Roadmap (GIR)

[GIR](#) provides an enabling framework for States in support of restart and recovery measures in the ICAO Council's CART recommendations and Take-Off guidance document.

#### Implementation Package (iPack)

In support to GIR, a series of Implementation Packages ([iPack](#)) have been developed.

#### COVID-19 Safety Operational Measures

The COVID-19 Safety Operational Measures [Website](#) provides guidance for States on their approach to enabling service providers and personnel to maintain the validity of their certificates, licenses, and other approvals during the COVID-19 pandemic.

#### Quick Reference Guides (QRGs)

[QRGs](#) have been developed to provide guidance in subject areas in addressing COVID-19 related aviation risks.

#### Guidance on COVID-19 aviation safety risks

A [Handbook for CAAs on the Management of Aviation Safety Risks related to COVID-19 \(ICAO Doc 10144\)](#) has been developed to help countries address the aviation safety risks arising due to the COVID-19 pandemic.

#### High-Level Aviation Recovery Conference

The ICAO Council has now cancelled the High-Level Safety Conference planned for May and replaced it with a High-Level Aviation Recovery Conference in October 2021 with COVID recovery, safety and facilitation workstreams. Consultation with States is taking place to agree the final agenda.

### EUROPEAN COVID-19 DEVELOPMENTS

In 2020 European aviation had 6.1 million fewer flights operated than 2019, over half the aircraft in Europe were grounded, and all part of the aviation system was massively impacted.

#### ECAC Coordination

ECAC has continued to coordinate at a European level with regular meetings and exchanges of information. These involve ECAC DGs, the European Commission, EASA and Eurocontrol and other invited guests. Meetings have discussed many issues such as traffic developments, CAPSCA work related to COVID-19 health measures, and the [CAPSCA EUR project](#), the outcomes of the ICAO CART work, recovery projects in several Member States, developments for the use of rapid

testing at airports, and the establishment of public health corridors (PHC) between ECAC Member States, and between ECAC Member States and non-European countries. A brief from Cranfield University on the changes and impact of passenger behaviour on travel demand provided insight into potential demand for leisure and business travel and potential fundamental shifts in behaviour.

### **Eurocontrol Think Paper**

Eurocontrol has produced a [Think Paper: 2020 COVID impact on European aviation & 2021 Outlook](#). This provides an authoritative review of the total impact of COVID-19 on European

States flights, airlines, aircraft, airports, air navigation service providers, and on sustainability and draws some key conclusions for what we can expect in 2021, and what needs to happen to sustain the recovery.

### **EASA Activities**

EASA COVID-19 related activities and initiatives are captured on EASA's website under [Covid-19 Resources](#) which includes: safety directives, safety information bulletins and guidance material; and [Covid-19 References](#) which include: public health references, operational references and Member States references.

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## **EUROPEAN DEVELOPMENTS**

### **UK-EU TRANSITION**

The [UK-EU Trade and Cooperation Agreement](#) builds on previous precedent and sets out the arrangements for the operation of air transport services between the UK and the EU. It sets out a framework for cooperation on aviation safety, and a process for agreeing Annexes to the Agreement that will facilitate recognition of UK and EU certificates, approvals and licences.

Air safety and security policies are now a responsibility of the DfT/CAA, working within the framework set by ICAO. The CAA provided support, insights and technical knowledge to the DfT for the negotiations with the EU and will continue to work extensively over the coming months on the technical details and making sure stakeholders understand what the Agreements mean and that details are clear and widely available.

The aviation element of the deal has 2 main areas: air services and safety. The air services element allows for continued flights between destinations in the UK and the EU without restrictions (3<sup>rd</sup> and 4<sup>th</sup> freedoms). Unlike previously, however, airlines on both sides will be required to apply for permits to operate and will not be able to fly cabotage<sup>1</sup> within the other party's region. There are also changes to who may own and control airlines that wish to access the Agreement, as well as to wet-leasing<sup>2</sup> arrangements. The aviation element includes an annex relating to airworthiness, covering design and production. This allows for some mutual recognition of certificates and

approvals. The deal provides scope for further annexes covering maintenance, personnel licensing and air traffic management.

For further information: [CAA EU Exit webpage](#).

### **EU DEVELOPMENTS**

#### **Presidency of Council of EU**

Portugal took over the [Presidency of the Council](#) of the EU on 1 January. The focus of the Portuguese Presidency [programme](#) is:

- strengthening Europe's resilience.
- promoting confidence in the European social model.
- promoting a sustainable recovery.
- speeding up fair, inclusive digital transition.
- reaffirming the EU's role in the world, ensuring that this is based on openness and multilateralism.



Logo of the Portuguese EU Presidency

The Presidency has said its activities on aviation related matters will have a focus on COVID-19 recovery and related work, advancing the SES 2+ and passenger rights dossiers.

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<sup>1</sup> Right to operate and transport goods by sea, air or by other transport services within a particular territory.

<sup>2</sup> Leasing arrangement whereby one airline provides an

aircraft, complete crew, maintenance, and insurance to another airline or other type of business acting as a broker of air travel.

### **Commission Proposal on Airport Slots**

The European Commission published a new [proposal on slot allocation](#) on 16 December. It aims to provide relief from airport slot use requirements for the summer 2021 scheduling season. While airlines normally have to use 80% of the slots awarded to them to secure their full slot portfolios for subsequent scheduling seasons, the proposal reduces this threshold to 40%. It also introduces conditions aimed at ensuring airport capacity is used efficiently and without harming competition during the COVID-19 recovery period.

### **Study on Emerging Technologies Impact on Transport System**

The European Parliament TRAN Committee published a study on "[The impact of emerging technologies on the transport system](#)" (addressing aviation as well as other modes of transportation). The study provides an overview of the impact of Smart Mobility and underlying emerging technologies on transport, the transport infrastructure and society. The main challenges for the deployment of Smart Mobility applications are identified and (policy) actions are defined that could be taken to overcome these challenges.

## **ECAC**

### **ECAC Dialogue with Air Transport Industry**

On 4 November ECAC/EU met representatives from the air transport industry to discuss the challenges and opportunities for rebuilding aviation post the COVID-19 pandemic. The [Dialogue](#) covered topics such as the economic

consequences of the pandemic, the public perception of the aviation sector, sustainability and innovation, and the Single European Sky (SES) package.

### **ECAC Directors General Annual Forum**

ECAC held its annual Forum of ECAC Directors General virtually on 9 December. Addressing the theme 'COVID-19 crisis – from survival to recovery', the Forum considered the current situation and explored how the crisis can drive innovation and make the sector more resilient. Discussions were held on the risks associated with human factors in fields such as safety and security; changing passenger habits; the impact of the crisis on the safety landscape and how to map and mitigate safety risks for a safe return to operations; insider risks from an aviation security perspective (Nina Smith - UK CAA), and managing risk to enable effective safety investigations during a pandemic (Crispin Orr - UK Air Accidents Investigation Branch). Overall the Forum stressed that harmonisation, adaptation, connectivity, investment, vision and innovation are fundamental in the efforts by all actors to overcome the crisis.

### **UK Appointed ECAC Environment Focal Point**



Rannia Leontaridi from DfT and the UK Director General of Civil Aviation has been appointed as the new ECAC Focal Point for the Environment.

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## **SAFETY**

### **EU Safety List Updated**

The [EU Air Safety List](#) (actually two lists) was updated in December. The first list (Annex A) includes all airlines banned from operating in Europe. The second list (Annex B) includes airlines that are restricted from operating under certain conditions in Europe.

### **EU Expands BASA with the United States**

The EU and the USA signed two new Annexes to the Agreement on Cooperation in the Regulation of Civil Aviation Safety (BASA) in November. This expands the areas of application to allow the conversion of [pilot licences](#) and to reduce duplication in the [oversight of flight simulators](#).

### **ECAC Group of Experts on Air Accident and Incident Investigation (ACC)**

On 22-23 October air accident and incident investigators and experts from ECAC Member States, observer organisations and stakeholders met under the newly appointed chair of the ACC, Crispin Orr - UK Air Accident Investigation Branch. Participants discussed the challenges of conducting air accident investigations during the COVID-19 pandemic and the measures adopted to manage the risks so that this important work can continue. Industry representatives and regulators also provided an insight into the changes underway across the industry as a result of the pandemic and its impact on safety management. In addition, the meeting heard updates on current investigations, such as the fatal loss of control

of an electric aircraft in the Netherlands, the complex investigation into a fatal light aircraft accident in Ireland, the final report of the Air France A380 engine explosion and fan loss over Greenland, and an update on the Boeing 737 Max return to service. Observer States Singapore and the United States, and observer organisations EASA, the European Commission, EUROCONTROL and ICAO, provided updates on recent developments and current priorities and activities. The group also reviewed its activities and discussed its aspirations and development of the draft 2022-2024 work programme, including outreach and future events such as the planned workshop on UAS.

## 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.

## CAAI to Draft Drone Regulations for Thailand



CAAI has been appointed by [CAA Thailand \(CAAT\)](#) to draft new drone regulations. The nine-month project will allow CAAT to safely

integrate the operations of Unmanned Aircraft System into Thailand's aviation system.

## CAAI Corporate Partnership with ICAO

CAAI has been awarded Corporate Partnership status on the [ICAO TRAINAIR PLUS Programme](#). CAAI and ICAO will jointly create and deliver courseware consistent with the Chicago Convention, ICAO's Standards and Recommended Practices (SARPs) and relevant ICAO guidance material. The first course, [CAA Preparation for Restarting Operations during a Pandemic](#), provides aviation regulators and industry organisations with safety and security oversight and surveillance guidance during the recovery phase of a global pandemic, such as COVID-19.

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## SECURITY

### ECAC 2021 work programme in security

On 12 November the ECAC Security Programme Management Group met to review the status of implementation of the 2020 work programmes of ECAC's security task forces. All the groups have succeeded in delivering their 2020 work programmes. A series of new and updated documents developed for insertion

in the ECAC Aviation Security Handbook was adopted by the Security Programme Management Group. The meeting also set priorities for these groups' [2021 work programmes](#), placing a strong focus on oversight activities, cyber security and detection.

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## ENVIRONMENTAL MATTERS

### ICAO Long-term Aspirational Goals (LTAG)

ICAO is working on its LTAG for aviation and CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation). LTAG work should identify and evaluate existing, foreseen, innovative in-sector measures in technology, fuels and operations and their enablers including information on probable costs. This will assist in identifying gaps, and information and expertise needed in order to complete a thorough assessment of all in sector CO2 reductions for international aviation. Timing, readiness, attainability and the quantity of CO2 reduction possible, based on a feasible roll out

into aviation sector" should be included. The CORSIA scheme aims to commit the sector from 2021 onwards to "carbon neutral" growth (baseline was supposed to be 2020 but is now 2019 due to COVID). The CORSIA scheme will be activated during a voluntary pilot period starting in 2021 and will then become mandatory for all airlines worldwide in 2027.

### ICAO Stocktaking Seminar

The [seminar covered presentations](#) from innovators, industry and technical experts, researchers, innovators, and States, sharing their plans for decarbonising international aviation. This included advanced and novel

aircraft technologies, operational improvements both air and ground, and opportunities for scaling up sustainable aviation fuels.



### **ICAO Green Recovery Seminar**

On 23-24 November ICAO presented potential [opportunities for aviation to take measures to reduce its emissions](#) footprint, as it seeks to 'build back better'. The seminar made clear that there is a need for climate action by aviation and showed examples of how aviation can reduce CO2 emissions taking COVID into consideration and discussed potential policies to facilitate decarbonisation.

### **EU's Sustainable Smart Mobility Strategy**

In December the European Commission published its '[Sustainable and Smart Mobility Strategy](#)' together with an [Action Plan](#) of 82 initiatives that will guide work for the next four years. The strategy lays the foundation for how the EU transport system can achieve its green and digital transformation and become more resilient to future crises. In line with the [European Green Deal](#), the result will be a 90% cut in emissions by 2050, delivered by a smart, competitive, safe, accessible and affordable transport system.

### **European Aviation and Environment Group**

The [EAEG](#) met on 1 October to finalise preparations for the ICAO [Committee on Aviation Environmental Protection](#) (CAEP) - 5-9 October 2020. A second meeting on 12 November met to discuss and endorse a proposal for a 2021 work plan for approval by the newly appointed ECAC Focal Point for Environment (the UK DGCA) ahead of presentation to ECAC Directors General.

### **Aircraft Noise Modelling Task Group**

The ECAC AIRMOD met on 27-28 October, with UK CAA in the chair. The Group progressed development of ECAC guidance on the calculation of helicopter noise. This will allow the modelling to better reflect the unique characteristics of helicopters and this method is expected to be suitable for modelling UAS

(drones) and eVTOL vehicle noise as well. The Group also discussed the revision of existing guidance on aircraft performance calculations, which are the inputs to noise calculations, including the development of reference case performance calculations to complement the acoustic reference case calculations published in Vol. 3 Part 1 of ECAC/CEAC Doc. 29 (4th Edition) in 2016.

### **EASA Analysis Non- CO2 Effects of Aviation**

EASA has updated the analysis on the [non-CO2 effects of aviation on climate change](#). This was to fulfil the requirement of the EU Emissions Trading System Directive. The study builds on scientific knowledge and presents a fresh analysis of the main climate impacts associated with air traffic, beyond CO2 emissions. CO2 aviation emissions are addressed under the EU Emission Trading System since 2012 but non-CO2 impacts have so far not been specifically addressed by EU policies. The report acknowledges there are already a number of measures in place that can also contribute to reducing the climate impacts of aviation non-CO2 emissions.

### **ICAO Committee on Aviation Environmental Protection (CAEP)**

The [CAEP](#) Modelling and Data base Group (MDG)/ Forecast and Economic analysis Support Group (FESG) Group met on 16-20 November 2020. On noise modelling there was a review of technology data for noise trends, and an update of airport noise decks. The group is scoping the changes for ICAO Doc 9911 looking at line-of-sight blocking, performance updates, helicopter noise modelling and multi-configuration NPDs. Noise Task Group recommends that a formal update is postponed to the next CAEP cycle.

On supersonics noise, the Mini Test noise modelling work was completed (showing that the proposed methodology can be used for the E-study), an initial review of supersonic aircraft data received from manufactures was undertaken. Coordination with manufactures is ongoing to get additional data for the E-study and Supersonic Transport (SST) landing and take-off Noise Modelling preliminary results were presented.

CAA requested that noise should be taken into consideration when defining the long term GHG aspirational goals.

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## CONSUMERS/ECONOMICS

### European Coordination Group on Economic Matters

On 12 November the European Coordination Group on Economic Matters met to discuss expectations and European positions for the informal session of the ICAO Air Transport Regulation Panel (ATRP). The meeting discussed the work on liberalisation at a global level - in particular on ownership and control of airlines.

### ICAO Air Transport Regulation Panel (ATRP)

An informal meeting of the [ATRP](#) was held on 18 November. The objective of the meeting was to build a better understanding and consensus on the key issues of concern highlighted by the ATRP members in order to make progress on development of the draft Convention on Foreign Investment in Airlines. The four sessions of the event addressed (i) the circumvention or

illegitimate use of liberal agreements by third parties commonly referred to as “free riders” and ‘bad actors’, (ii) possible implications of liberalisation on effective regulatory oversight, (iii) ensuring fair and equal opportunity for air carriers to compete, and (iv) the issue of labour and other social matters.

The meeting also discussed: economic and financial relief measures, future resilience and economic sustainability, State interventions and private investments, fair competition and a level playing field, public service obligations, the financial fitness of airline operators and the rules on ownership and control. In addition: balancing the need to support the industry with the desire to secure wider policy goals as a condition of State assistance, and financial support measures for certain airlines and the specifics of the conditions and terms of those measures.

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## AIR TRAFFIC MANAGEMENT

### European ATM Network Fuel Inefficiency Study

Inefficiency in the European air traffic management network may result in an average additional fuel burn of 8.6%-11.2%, according to a recent published [report](#) from Eurocontrol. The report clarifies potential environmental benefits the Single European Sky (SES) 2+ legislation could deliver.



The report introduces a new approach to calculate fuel burn; the new approach is directly based on fuel burn from take-off to landing, in order to better assess the potential benefit pool

of fuel/CO2 that can be addressed by ATM. This allows a more holistic assessment and takes into account a range of factors such as wind when calculating the best route for different aircraft types. The report highlights multiple factors and drivers that influence fuel inefficiency in the European ATM system. These include route network constraints, availability of airspace, and airspace users' choices, for example due to significantly different unit rates between states.

### EU Performance and Charging Scheme

The European Commission presented proposals for revisions to the performance and charging regulation (EU regulation 317/2019) in late 2020, setting out exceptional measures to address the changed economic and operational circumstances resulting from the pandemic. The revised regulation was agreed by EU Member States in early November 2020 and is now [EU regulation 2020/1627](#). As of 1 January 2021, the UK is no longer subject to the EU performance scheme but will be following any developments with interest.

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## INNOVATION

### ICAO Global Symposium on Innovation

An ICAO Global Symposium on Implementation of Innovation in Aviation was held 8-11 December 2020. [Presentations](#) are available at ICAO TV (registration and log in may be required). Sessions included: Artificial Intelligence Applications, Green Innovation and High Airspace Operations. For many State regulators this was an introduction to how they might meaningfully engage with Innovation. Subsequently ICAO was repeatedly requested to help facilitate continuing engagement. Overall there was agreement amongst attendees that Innovation was required throughout the industry-regulatory chain and that changes within ICAO and State processes were an important consideration looking ahead.

**Artificial Intelligence (AI) Applications:** The Symposium highlighted that significant progress is being made with the introduction of AI in a number of aviation industry applications, and work has been accelerated by the COVID-19 pandemic as efficiencies and associated cost savings have been sought. It also highlighted that AI in aviation is being realised across a wide spectrum of related capabilities and technological functions, all of which will interface with regulators, including: Automation, Autonomy, Digitisation, Data, and Block Chain. It was agreed that collaboration across industries, States and sectors within the aviation safety environment is required to ensure that a holistic approach to AI risks and benefits. There was agreement that AI can help improve safety performance in the right circumstances but that a system-wide approach was needed to ensure the changing role of the human is fully understood. A role for ICAO in this was discussed but many attendees stated that a traditional approach (such as a Panel) was likely to be too slow to respond to the rapid development of AI. The case for regulators working with innovators and existing industry for AI developments from the earliest possible stage was a vital response to address the issues raised in this session.

**Green Innovation:** A wide range of Green innovations and initiatives within the aviation sector were covered, including: Sustainable Aviation Fuels (SAF); options for use of Hydrogen as an alternative fuel source; and the [ICAO Global Coalition for Sustainable Aviation](#).

DfT Head of Aviation Decarbonisation Strategy presented on the formation and role of the [UK Jet Zero Council](#). [Zero Avia](#) highlighted the

significant progress made on their Hydrogen Fuel Cell powered aircraft in the UK, enabled with UK government and CAA support, and the company's development of sustainable Hydrogen production, storage and refuelling infrastructure. Generally, it was agreed that as States increasingly look to a net-zero carbon emissions in the 2050 timeframe, significant steps were required to nudge the aviation industry in that direction or risk missing the ambitious targets that have been set. ICAO presented its activities as part of a wider UN Climate Action initiative, including: Aviation Fuels, Technology; Operations and Infrastructure; and the Carbon Offsetting and Reduction Scheme for International Aviation ([CORSA](#)). ICAO called upon States and organisations to support these initiatives.

**High Airspace Operations:** The Symposium highlighted how some new airspace users are emerging to operate in and/or transit through, the very highest levels of airspace where little aviation activity has historically occurred, and consequently a scarcity of appropriate safety regulation, certification standards and operating concepts exists. The diversity of vehicles is wide-ranging, from unmanned balloons, airships and solar planes capable of persistent flight, collectively known as High Altitude Platform Systems (HAPS) to super and hypersonic aircraft, trans-atmospheric and suborbital vehicles. Commercial and State space operations are also transiting through the higher airspace for launches and re-entries.

The Symposium focused on current projects and initiatives globally that seek to unlock the ability to operate routinely at Higher Airspace levels (typically FL500+) and crucially to enable safe integration amongst themselves and other airspace users (as they climb/descend). In the USA (FAA, NASA, industry etc) emerging work continues to address operations at and above FL600 for North America with suggestions of a flexible buffer airspace provision required below. The European concept for higher airspace operation ([ECHO](#)) SESAR 2020 aims to enable safe, efficient and scalable operations above the flight levels where conventional air traffic operates; the CAA is represented on the advisory board of this project.

International Strategy and Engagement  
International Group  
February 2021