2023 EASA – FAA International Aviation Safety Conference
The path to the future: safety and sustainability first

Cologne, 13-15/06/2023
Summaries of Conference sessions

Contents

An agency of the European Union

An agency of the European Union

1   KEYNOTE SPEECH

Speaker:

József Váradi, CEO Wizz Air

1.1   Notes

Mr. Váradi presented Wizz Air, an airline group with four Air Operator Certificates (AOCs). The airlines are subject to different jurisdictions and oversight, which is providing diversity of input into the airline operations.

He explained Wizz Air's investment in

- safety, e.g. by implementing Fatigue Risk Management (FRM) and various reporting systems for staff;
- sustainability, e.g. by investing in new aircraft and technology as well as SAF production.

He pictured Wizz Air as learning organisation, using challenges and input to improve daily operations.

Regarding challenges, he mentioned that the COVID pandemic was certainly difficult but rather seen as an opportunity at Wizz Air. Other challenges which followed were last summer's operation and the Ukraine war. This resulted for example in airspace congestion and re-routings.

A present concern is the fragility of industry overall, and the vulnerability of the supply chain.

An agency of the European Union

2   FIRESIDE CHAT ON AVIATION SAFETY & SUSTAINABILITY

Moderator:

Pete Bunce, President and CEO, GAMA

Panel members:

Patrick Ky, Executive Director, EASA

David Boulter, Acting Associate Administrator for Aviation Safety, FAA

2.1   Notes

The Fireside chat addressed safety, innovation, sustainability, rulemaking cooperation, bilateral cooperation and global leadership.

The big success story for the past decade has been the continuous improvement of safety. Air transport is the safest mode of transportation. However, there are no more low hanging fruits to improve safety; it requires much more efforts to further improve safety than it used to be 20 years ago. For the next 5 years, new threats external to the aviation sector (spectrum, climate change, pandemic, conflicts) are emerging as well as new entrants and technologies. At a minimum, the same level of safety needs to be maintained, and if possible, continued to be raised.

The relationship between regulator and air carriers has grown more open and transparent over the years. For example, the Commercial Aviation Safety Team (CAST) helped to reduce the risk of a fatal accident by 96 percent since 1998. Relationships among regulators across the world are also key. Regulators learn from each other, especially with significant innovations in the industry.

Innovation and new technologies are opportunities to improve safety rather than they are a threat to safety. The safety authorities need to understand fully how innovation can be brought along to improve safety. To do that, we need to rely on the innovation providers. EASA is engaging through Innovation Partnership Contracts (IPC). For EASA, the major challenge is to keep pace with industry's speed of the innovation in rulemaking. The rulemaking timelines have been shortened to meet industry expectations. The FAA needs to be more agile. The FAA wants and needs to challenge itself to find different ways to approach these new technologies without compromising safety; it's a careful, and extremely important, balance. Regulators shouldn't introduce unnecessary risk into the system.

Regarding sustainability, the authorities should be an enabler. While not being policy makers themselves, they can advise the policy makers and can support implementation.

Regulatory harmonisation is important and both authorities are key partners. However, harmonization often requires enormous efforts, which may not be compatible with the time pressure resulting from the fast pace of innovation. We can't afford to wait for full alignment, we will need to prioritize, together with industry. Regulators do not compete when it comes to safety. We can and should work together by holding regular conversations — early and often — before we enter into a formal rulemaking process.

An agency of the European Union

The United States (US) -European Union (EU) Aviation Safety Agreement has been key to ensure a high level of safety, in the US, in the EU but also worldwide, by enhancing timely exchange of in-service information and by reducing the duplication of efforts for certification in particular, hence allowing our resources to focus on the most safety critical matters. Mutual recognition of our systems has allowed us to overall raise the bar on safety. Regarding the future, the authorities can continue to build with the current framework set by the US-EU Aviation Safety Agreement, and expand further the sharing of data, the cooperation on rulemaking (for new technologies in particular). It is a very powerful tool that has not delivered to its full potential yet.

Looking at the future, for EASA the priority is to work on new technologies and sustainability. Communication with FAA at all levels must be kept. For the FAA, the focus must be on the things that give us the greatest safety benefit and permit the industry to evolve. We need to continue to attract and nurture talent across the board – pilots, mechanics, and engineers. There's plenty of work out there across all of our technical disciplines. The bilateral relationship is essential to our collective commitment to safety. We should continue to harmonize where we can and recognize the other's expertise where we cannot.

An agency of the European Union

3   FAA HIGHLIGHTS

Speaker:

David Boulter, Acting Associate Administrator for Aviation Safety, FAA

3.1   Notes

The session focussed on presenting FAA accomplishments during the past 12 months. Mr. Boulter highlighted that one of his focusses is to review processes and streamline them to support the FAA work.

He particularly mentioned the following FAA deliverables:

- Advanced Air Mobility (AAM): SFAR and airworthiness criteria published.
- Drones: first type and production certificate issued, Policy for agricultural operations published.
- Standardised curriculum concept for training published.
- Issued STC for leaded fuel alternative.
- Rulemaking accomplishments, inter alia,
  - o flight attendant duty and rest periods,
  - o commercial balloon medical standards,
  - o aviation maintenance training,
  - o SMS on airports, working on certification SMS requirements,
  - o updating Manual certification requirements.
- Certification & Safety Oversight Reform, a review of designations was done.
- Organisational changes: Polly Trottenberg as acting Administrator.

The slides can be found here:

https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

4   EASA HIGHLIGHTS

Speaker:

Patrick Ky, Executive Director, EASA

4.1   Notes

The speech provided by Patrick Ky can be found here:

https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

5 PLENARY: SAFE SUSTAINABILITY OR HOW TO MANAGE AVIATION'S COEXISTENCE WITH OTHER SOCIETAL PRIORITIES/NEEDS

Moderator:

Luc Tytgat, Strategy and Safety Management Director, EASA

Panel members:

Lirio Liu, Executive Director, Aircraft Certification Service, FAA

Filip Cornelis, Aviation Director, European Commission, Directorate General Mobility and Transport

Felix Meunier, Director General, Civil Aviation, Transport Canada (TCCA)

Nicolas Chabbert, Senior Vice President Aircraft, Daher

JoeBen Bevirt, CEO, Joby

5.1 Notes

Aviation has and is facing multiple crisis.

The COVID pandemic has been the most disturbing episode in the history of aviation. It has stressed the system and put into question the growth model of the aviation sector. It created a much stronger focus on environmental protection and sustainability. It also increased engagement on aspects of general staff wellbeing.

The Russian Federation's invasion of Ukraine has stressed further the aviation supply chain. And it has accelerated the materialization of emerging threats such as GPS manipulation, jamming and spoofing. Cybersecurity has climbed on top of the priority list.

Aviation is now on a dynamic recovery path in 2023. Despite challenges due to war and high fuel prices, aviation has shown an extremely high resilience.

The historic recovery of aviation comes at a time when an unprecedented boost of innovation is seen in the sector and all other parts of the economy and the wider society. We are at a turning point when it comes to the introduction of new air vehicles, together with new concepts of operation and disruptive technologies. We are changing the way we fuel aircraft – adopting Sustainable Aviation Fuels more widely in a short-term bid to become more sustainable. In the longer term, we are looking at completely different fuel possibilities such as hydrogen. This can also lead to significant changes in the design of aircraft. Challenges will come from digitalisation and new ATM technologies. Beyond aviation, innovation in the field of artificial intelligence and machine learning technologies are being deployed rapidly. There is a constant need to adapt to new challenges.

A more integrated, collaborative approach to aviation risk management is to be explored, covering safety of course, but also security and cyber security risks, sustainability, spectrum, health, etc. Effective risk management capabilities at supranational/federal, State and industry level are more important than ever to cope with the multiple systemic and operational risks and wide-ranging effects of the different crisis. Such capabilities will enable the transition to a more resilient aviation system. And we need to work together:

establish partnerships working groups with new stakeholders that we are not used to speak to and do not know the aviation sector (which requires efforts and time to be educative).

TCCA

While we all face the same challenges, it must be recognised that environments are different. For example, Canada is different from Europe. Canada is a large country, a lot of communities are only accessible by plane, Canada is sparsely populated and has a vast uncontrolled airspace.

Despite these differences, the regulators can foster rather than imped innovation, in a timely fashion. Maintaining the confidence of the flying public on safety is key. Sustainability is vital to our sector, also because it is a "selling" argument for the young generation to get interested in aviation careers.

It is impossible to reliably predict the future. We should look at how other sectors deal with innovation, how they perform risk assessments. The ideas are not always transferable, but a few good ones emerge.

Daher

The industry doesn't need to be in a defensive mode when it comes to sustainability. Sustainability is an opportunity. The public expects decarbonization while the industry and regulators cannot jeopardize safety. The key question for industry is how new products with new technologies or breakthrough technology can satisfy the market in a timely manner (no more than 5-7 years)? Parts of the industry are conducting a demonstration campaign to seek for the right combination of mature technologies, this is funded through public money. The relationship between industry and regulators should be efficiently used, based on the existing experience, defining together new methods and new means of compliance. Regulators and industry are partners to build the methods and means of compliances for safety and sustainability.

European Commission

The use of SAF may come at a higher cost compared to conventional jet fuel but it is essential to understand that safety is of utmost importance, and safety regulations and standards are strictly enforced by aviation authorities worldwide. The EU is providing significant financial support to airlines for the use of SAF. There are additional financing tools de-risking SAF production and support SAF development at all maturity stages.

Coordination and cooperation between different stakeholders is key when it comes to integrating new entrants and innovative air mobility operations into the airspace. Taking the example of U-space, Europe's drone traffic management solution, a successful designation of U-space airspace will require the involvement of national civil aviation authorities, but also of other public and private entities at regional and local level. The regulatory framework requires competent authorities to establish a coordination mechanism to ensure that the interests of all U-space actors are well represented and managed in a non-discriminatory manner.

FAA

Regarding the safety and sustainability of aircraft batteries, safety is the primary focus. However, there is a need to evaluate the life cycle of the new technology for sustainability. Regulators do not want the aviation industry being short-sighted and allowing new technology use when it has a negative impact on the

An agency of the European Union

environment. This requires a change of mindset, the need to communicate early, to work on the safety aspects in a sustainable manner.

Implementing new technology needs cross-agency coordination, taking the 5G implementation in the US as an example. There are two industries with competing interests. There is a need to address safety from both sides and upfront. Cross-agency coordination provides a path for sustainable use of technology.

Joby

Sustainable fuels are an important first step but need to pivot from burning whatever fuel in the sky. We need to go fast to true zero emission. Batteries have a specific energy density that makes it as a disadvantage compared to fuel, and even more compared to hydrogen. Hydrogen should be the path. Important that EASA and the FAA work together on Hydrogen and that the sector delivers solution in 5 years from now rather than 10 years from now.

The aviation community does not celebrate enough our achievements on safety, aviation is the safest mode of transportation. A hundred years of learning. New entrants can learn a lot. New technologies can be used to increase even further safety. Use data to identify the main areas to tackle, like controlled flight into terrain, situational awareness, and tackle them one by one.

6 PANEL 1: CERTIFICATION REQUIREMENTS FOR INNOVATION - BRINGING INNOVATION TO MARKET

Moderator:

Vincent De Vroey, ASD Civil Aviation Director

Panel members:

Rachel Daeschler, Certification Director, EASA

Lirio Liu, Executive Director, Aircraft Certification Service, FAA

Roberto Honorato, Head of Airworthiness Department, ANAC Brazil

Markus Kochs-Kämper, Head of Design Organisation, Heart Aerospace

Peter Lyons, Head of Certification, Overair

6.1 Notes

FAA

- Constantly working on the safety continuum and the operational situation of new technologies associated safety risk.
- Part 23 performance based re-write and consensus standards as an example.
- Working with major partner Authorities towards convergence on rules and guidance material.

EASA

- Duty and mission to enable innovation with both new air mobility and conventional aviation in the transition to greener aviation.
- The certification framework is flexible, and more work is now performed upstream of an application to reduce programme risk.

ANAC

- Strong interest from operators for new markets.
- Active promotion of innovation and understanding regulation is not there to only create requirements.
- Exploration of new models of regulation (or no regulation).
- Challenges with New Entrants and the traditional aviation system.
- Open to feedback and working with international partners for standards and harmonisation.

Heart Aerospace

- New aeroplane concept for electric, zero emission, regional flight, to be the new normal, 300 km range or 400 km with hybrid system.
- Regulatory bodies need to be aligned but are not there yet.
- Steep learning curve in industry and regulators, progress must be maintained to meet demands.
- Finding ways to futureproof a holistic approach.

Overair

- Has been involved in certifying new technology for 20 years.

An agency of the European Union

- New forms of transportation are driving early funding rounds to enable innovation, results must be tangible to continue.
- Landscape has changed over that time but it's still basically an engineering integration exercise.
- New class of aircraft requires early engagement in the development cycle and adoption by the regulators of performance-based rules to avoid constant iterations catering for the varying technological solutions.
- Consensus standards are key enables for industry and regulator engagement.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

6.2 Polls

In what areas do you think regulators should improve to bring innovation to market sooner? 1 (lowest) - 3 (highest)   0 3 6

1. Cooperation between regulators

    2.28

2. Quality of requirements, i.e. performance-based/proportionate requirements

    2.03

3. Speed (pace) of delivery of new requirements/standards

    1.69
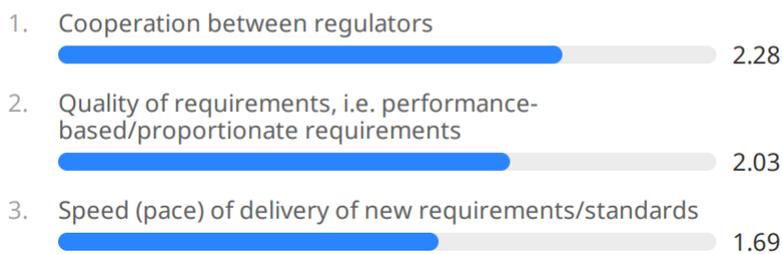
In what timeframe do you believe a zero-emission transport aircraft will be brought to market?   0 5 4

Within 10 years

    26 %

Within 15 years

    28 %

Within 25 years

    46 %

An agency of the European Union
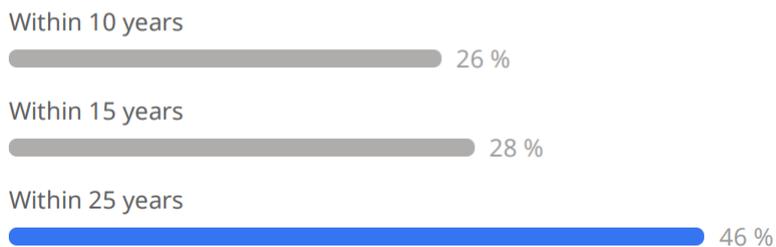
7 PANEL 2: SAFETY TRENDS AND RISK ANALYSIS

Moderator:

Jesper Rasmussen, Flight Standards Director, EASA

Panel members:

Kim Pyle, Executive Director, Office of Accident Investigation and Prevention, FAA

Yannick Malinge, Head of Product Safety, Airbus

Tony Fazio, President, Fazio Group International

Stéphane Clément, Director of Regulatory Affairs, Civil Global Training Organisation, Civil Aviation Services, CAE

7.1 Notes

Data sharing

- We need to have the right culture so people feel safe to report in the first place.
- Technology can help, e.g. Reporting Apps, but we need to use it well.
- We need to decide if, on a global level, we are best to share data or just information derived from that data. The obstacles are mostly cultural.

Data analysts and operational experts

- Industry and organisations need to better connect the data scientists, front-line staff and their safety teams. We need to understand each other's role and establish trust.
- We need to be clear on the purpose of what we are trying to do at all times in safety terms.
- We must understand and define the role for AI in safety analysis and decision making?

Collecting Good Data and Turning it into Actionable Intelligence: The system has more data than it can handle, it is vital that we collect the best data we can and then enable analysts and operational experts to create actionable intelligence/ information that help organisations to make good, objective, data-driven decisions. To get good at that we need to share best practices and work towards common practices and also working directly with one another.

Sharing Data or Sharing Information: Data sharing at global level is a huge challenge and potentially not necessarily needed. Provided we collect data in the right way, in the right places (organisationally, geographically etc) we can strengthen our information sharing capabilities much more quickly. There are still many governance issues to be resolved if we are going to share data, first we need to decide if we want to share data or just information.

Culture is our Biggest Challenge: At the heart of the challenge is the need to have the right culture. Both to help get reports in the first place and then also to encourage information sharing. The culture starts from the top of organisations.

The slides can be found here:

https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

8 PANEL 3: OPERATIONAL ASPECTS OF EVTOL AND OTHER INNOVATIVE AIRCRAFT

Moderator:

Joachim Luecking, Head of Unit Aviation Safety, European Commission, Directorate General Mobility and Transport

Panel members:

Maria Algar Ruiz, Programme Manager Drones, EASA

Robert Ruiz, Director, Office of Safety Standards, Flight Standards Service, FAA

Makoto Eguchi, Director Airworthiness Standards & International Affairs Office, Japan Civil Aviation Bureau (JCAB)

Ronald Liebsch, Head of Regulatory Affairs, Volocopter

Eric Wright, Head of Certification, Archer

8.1 Notes

The Panel was opened by Joachim Luecking, who, after affirming that regulatory certainty is key especially in such an innovative domain, stated that for drones in the EU discussions are already about the operational aspects. After having defined the rules for the 'open' and 'specific' categories, the target in the EU is the 'certified' category.

The first question was for Maria Algar Ruiz, who explained the regulatory activities related to drones undergone by EASA, starting from the gap analysis performed in 2017 to the upcoming Opinion that will be issued in July 2023 on the 'certified' category. She also explained that the EU approach has been always to modify existing rules, rather than granting exemptions. She concluded stating that the first allowed operation in the 'certified' category will be VFR day only. In addition, EASA will shortly publish a draft regulatory proposal to address the operational requirements applicable to manned VTOL-capable aircraft carrying passengers and heavy cargo.

To the question on how the FAA's Flight Standards Service is preparing for the integration of AAM and UAS/drone technologies into the national airspace, Robert Ruiz replied that they are looking at the certification of these vehicles, mentioning that an NPRM is out for public comments.

Japan has the ambition to realise AAM operations at Osaka Expo 2025, in particular VFR day only with pilot on board. Makoto Eguchi stated that the goal is to have AAM operations between the Expo location and Osaka International Airport. Considerable preparations are required, however JCAB is prone to amend the rules to accommodate it.

The first round was concluded by Joachim Luecking asking the industry representatives which most urgent measures are needed from regulators around the globe to bring those new innovative aircraft into commercial operation as soon as possible. For Eric Wright (Archer), the key aspect is to understand the process to achieve a Type Certificate, including pilot's qualification and training, mechanics training and ATM

An agency of the European Union

integration. For Ronald Liebsch (Volocopter), the key is to have a certified vehicle as soon as possible, being the target Paris 2024 Summer Olympics. Pivotal aspect is also represented by the public acceptance.

The discussion was then progressing towards environmental and cyber-security aspects and impacts of these new technologies. All the panel members agreed that social acceptance is fundamental to achieve the full benefit of eVTOL, in particular with regards to noise. It was added that one of the challenges for innovative air mobility involving manned eVTOL aircraft is to test autonomous flight capabilities in staged real-life conditions and integrate them into operational environments, while minimising their impact on the environment throughout their life cycle and striking the right balance between safety and security.

A remark was made to the challenge that may be posed when scaling operations. For the FAA, autonomy will play a fundamental role, whereas for JCAB information sharing is key. EASA stated that new ways to manage capacity especially on arrival and departure are needed.

The panel concluded that several innovative aircraft designs, including eVTOL aircraft, are rapidly approaching operational reality, which includes not only design certification, but also training, personnel certification, and operational certifications. Key aspects are not only societal acceptance (noise, environment and sustainability), but also airspace integration, cybersecurity risks, and more importantly the scale-up of operations. EASA and the FAA are working together to ensure the mutual validation of eVTOL aircraft certification requirements, having the same target (safety), despite the different approaches taken. Both, the EU and the US are pushing the pace when it comes to regulatory interventions in the field of innovative aerial services, whether manned or unmanned, as regulatory certainty is needed to develop this nascent market and ensure the highest level of safety and security further sustainably.

An agency of the European Union

9 PANEL 4: DIGITALISATION – CHALLENGES AND OPPORTUNITIES

Moderator:

Declan Fitzpatrick, Chief Executive, Irish Aviation Authority (IAA)

Panel members:

Claudio Trevisan, Programme Manager Digitalisation of Aviation, EASA

Tom Sciortino, Acting Director, Compliance and Airworthiness Division, Aircraft Certification Service, FAA

Ryan Coates, Director - Remotely Piloted Aircraft Systems Task Force (RPAS), Civil Aviation, Transport Canada (TCCA)

Gilles Garrouste, Deputy Vice President Certification, Executive Expert Certification, Dassault

Scott Roesch, Senior Director Product Management, Honeywell

9.1 Notes

Introduction: the benefits of digitalisation

The moderator presented the Panellists and introduced the topic at stake by referring to the known benefits of digitalisation. Digital services are being already widely used and appreciated (electronic flight tickets, boarding cards on the mobile phone). Digitalising aviation services also facilitates the development of new solutions in other domains; an example is associating hotels booking or car hire services with the electronic flight ticket systems.

Digitalisation drivers

Digitalisation is driven by a combination of business needs and technological opportunities. Stakeholders are always looking for process improvements and efficiency gains, while technology evolves and new solutions become available at decreasing costs. Aviation authorities need to accompany such digital transformation, by enabling the safe implementation of innovative solutions.

Digitalisation: challenges and solutions

Digitalisation must be based on a clear understanding on how data are structured and flow across entities.

Within organisations, it needs the involvement of the high management and a sound change management approach (for instance when moving on from legacy systems). Organisations also need to be prepared to afford the high costs of the needed investments. Besides, data privacy and cybersecurity need to be properly addressed (cybersecurity attacks are constantly on the rise).

It is also paramount to understand how digitalisation can help making the right assumptions in the design process, turning data into informed decisions. Digital modelling and simulation enables stakeholders to rely on the results of virtual tests, with little use of expensive real-life tests. However, increased reliance on digital models when certifying products may add uncertainties at the level of initial product definition.

The certification process is evolving from "sending compliance documents" to "sending meaningful data".

An agency of the European Union

At the same time, the associated regulatory requirements are growing in complexity: digital solutions to manage and demonstrate compliance would greatly simplify the certification process. Digital assistants powered by artificial intelligence may play a major role, provided their reliability can be demonstrated.

The aviation industry is already quite advanced in the digitalisation of certain services or tools: fully digitised cockpits, avionics systems integrated with all other aircraft systems. At the same time, industry and authorities need to join efforts to understand how to certify such advanced, innovative technologies.

Digitalisation goes global

Aviation is a global business, where stakeholders are required to meet the expectations of multiple Authorities. The introduction of digital solutions needs to be supported by common standards and interoperable solutions. An example is the acceptance by regulators of electronic signatures: while the electronic Identification, Authentication and trust Services (eIDAS) regulation provides a very robust legal framework within the European Union, there is no automatic acceptance/recognition of electronic signatures across different jurisdictions. Steps are being taken to address this challenge at international level, up to ICAO via its International Aviation Trust Framework, but efforts are needed at all levels to achieve a global solution.

Authorities need to modernise their regulatory frameworks to support the industry's digital transformation. It's not just a matter of "replacing paper with data", but a complete rethinking of how compliance can be demonstrated in a digital environment. This is easier when starting from a clean sheet, such as when introducing regulations for drones. Regulators are also giving high priority to the digitalisation of legacy processes such as aircraft registration, pilot licences etc.

The importance of using open standards whenever available was stressed, as it facilitates interoperability. Standards may already exist outside the aviation domain: as an example, when introducing electronic personnel licences ICAO opted to use as a reference the standard ISO 18013-5 for mobile drivers' licences.

Digital data also represent a valuable source of safety information. However, to be able to exploit their potential such data should be open/available. Solutions are needed to ensure that safety-relevant data can be used across the industry without being declared "proprietary".

Finally, certain countries do not have the resources to keep up with the speed of digitalisation. This needs to be seen as an opportunity to raise the safety bar by partnering with them. A proposal could be to create a global framework and roadmap for Digitalisation of aviation at ICAO level (a future Annex 20?).

An agency of the European Union

10 PANEL 5: ATM TECHNICAL AND OPERATIONAL HARMONISATION – ENABLING AIRSPACE SYSTEM CAPACITY TO SAFELY ACCOMMODATE AND INTEGRATE NEW ENTRANTS

Moderator:

Brandon Roberts, Executive Director, Office of Rulemaking, Aviation Safety, FAA

Panel members:

Athanassios Tziolas, Head of ATM Department, EASA

Jeffrey Vincent, Executive Director, Unmanned Aircraft Systems Integration Office, FAA

Federico Javier Viejo Acosta, U-space & ATM SESAR Programe Director, Indra

Steve Jangelis, Aviation Safety Vice Chair, Air Line Pilots Association (ALPA), International

Michael Erb, Managing Director, AOPA Germany

10.1 Notes

Commercial Space is the first topic addressed by the Panel. Steve Jangelis (ALPA) and Jeffrey Vincent (FAA), showed a slide on how a space launch at Kennedy Space Center has impacted civil aviation routes. In the past, launches were mainly military ones, whereas now a commercial space launch industry is emerging. Main issues are related to the fact that currently launch windows can be hours long.. In the EU, there is a lot of uncertainty regarding the demand for future space traffic from continental Europe; it is not certain that space launches will create major airspace capacity issues in the short term; therefore, no systemic change of the ATM system is needed for initial needs of space launches.

The second topic addressed how Europe is planning to integrate new entrants in the airspace. Athanassios Tziolas explained that EASA vision is based on 4 main work areas: U-Space, High Altitude Operations (HAO), ATM Ground Equipment Conformity Assessment, and Research and Development activities.

Firstly, the U-Space Regulation is the first step taken for the integration of drones into the European airspace. It intends to set the framework under which the EU Member States may designate volumes of airspace (U-Space) in which drones will operate. In the first implementation it is envisaged that unmanned traffic operates semi-segregated from manned traffic.

Secondly, HAO in the airspace will trigger specific challenges, as during their climbing and landing phases, these operations will transit through the conventional traffic, thus posing safety risks. EASA published a roadmap in March 2023, endorsed by the Commission and the EU States, recommending a progressive and cross-domain approach leading to the possible preparation of regulatory material as of 2025.

Thirdly, the new framework for the conformity assessment of ground equipment aims to streamline the attestation of ATM/ANS equipment, paving the way for a much-needed technological evolution of the ATM landscape. For the most critical ATM equipment, the design and production organisations will apply for certification to EASA. The certificate issued by EASA will enable the introduction into service of that equipment by ATM/ANS providers.

An agency of the European Union

Fourthly, SESAR is undertaking research on technological solutions that will enable the increase of the capacity and further develop the integration of unmanned traffic into the ATM landscape. Coordination between EASA and SESAR 3 JU continues to ensure that the ongoing regulatory activity takes full account of the research being conducted by SESAR.

Federico Javier Viejo Acosta (INDRA) explained that cooperation with regulators is fundamental in order to be prepared for the upcoming new framework for the conformity assessment of ground equipment and implementation of U-space, mentioning the active participation in the various experts' groups and the work in SESAR 2020 and 3 programmes (PJ34-W3 AURA and ENSURE projects).

Michael Erb (AOPA) explained that new entrants will go live very soon, and, airspace segregation could be a solution, at the beginning. He also mentioned the importance of collision avoidance systems, and more in general detect and avoid systems. This aspect has been reiterated both by the FAA and EASA. Reliable and affordable detect and avoid systems are considered paramount to enable a safely accommodation and integration of new entrants.

Finally, questions from the public were answered, in particular on how the new framework for the conformity assessment of ground equipment will affect the introduction of SESAR Machine Learning / Artificial Intelligence applications to ATM. Athanassios Tziolas explained that new EASA AI roadmap 2.0 shall be followed.

Another relevant question related to the challenges for future potential third-party service providers with regards to certification of ATM/ANS constituents. EASA replied that interoperability will be assured through the new system.

It was concluded by stating that EASA is committed to work with all stakeholders to enhance a common understanding of the main risks, challenges and propose appropriate mitigations and solutions. EU partners (EC, EASA, SESAR, etc) and FAA will continue to cooperate on these topics, through valuable technical exchanges on the respective CONOPS and sharing lessons learned from the R&D and implementation activities. EASA will also bring European vision and experiences to ICAO, to maximise the impact of our collective work on the global stage.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

11 PANEL 6: EVOLUTION OF CERTIFICATION AND FLIGHT CREW OPERATIONS

Moderator:

Giancarlo Buono, Director Safety and Flight Operations Europe, IATA

Panel members:

Andrea Boiardi, Chief Expert Operational Suitability Data (OSD), EASA

Caitlin Locke, Acting Deputy Executive Director, Flight Standards Service, FAA

Tanja Harter, Technical Affairs Director, European Cockpit Association (ECA)

David Oord, Policy Manager, Wisk

11.1 Notes

The panel discussed how evolving technology is impacting the training and certification of pilots in a flight crew environment.

- Will traditional pilot training and certification need to be changed to as more sophisticated aircraft are designed?
- How are enhanced aircraft capabilities affecting a multi-pilot crew's workload and allowing OEMs to introduce aircraft with reduced crew?
- How will human factors influence the safe operation of the more sophisticated aircraft?

Training did not change significantly during the past years. We are still training pilots like many years ago. However, technologies changed dramatically, and pilots may face different challenges.

New technologies have to be part of training programmes. The authority role is to support changes and talk to the manufacturers. To adapt the general training framework after the certification, Operational Suitability Data (OSD) was introduced. With strong involvement of the manufacturer and with the supervision of the authority. Classic training has to be integrated with new technologies and changes. There is the need to apply a different approach. Pilots need to be trained as professionals with a holistic approach and not focusing only on flying skills. Globally there is a good cooperation between operators and training organisations.

New "modes of transportation" (e.g. urban air mobility with eVtol). Safety remains key. Pilots will continue to be part of the system but with a different prospective. Pilot will be qualified as remote supervisor. All the tasks of the pilots will be taken into consideration but will be performed in a different way.

Very challenging moment for the regulator facing an evolution more than a revolution. Pilots soft and technical skills are the same but will require an evolution.We need to ensure that pilots can still manage the path but also more and more automation. Talking about the challenge emerging from new technologies and way of transportation, like eVTOL, we need to realize that these are aircraft designed significantly different from a standard one. Pilot interaction with automation is more and more important. Regulation will need to adapt to the changes and new technologies. Pilots will need new skills.

FAA is developing a framework that enables the pilot to operate with these new aircraft. FAA is considering introducing the category of powered-lift aircraft.

Long-term EASA is thinking about creating a new category. In the meantime, ad interim, there will be a solution to ensure the pilot with the right skills. Use a pilot from helicopter or fixed-wing as a basis, and then build on a specific training programme with the help of the manufacturer.

Artificial Intelligence (AI) needs to be defined. AI is a blurred concept and is not clear for all. AI could support the pilot. However, there are also questions on responsibility - pilot or AI? The pilot workload could also increase if AI would not be reliable. There are some concerns today about the complexity AI may add.

Virtual Reality in enhanced training. Current FSTD have reached their limit. Virtual Reality will be part of the training environment.

Are flying hours important? Should pilot experience be judged by flight hours? New limits may have to be defined. Flying hours itself are too simplistic. The competencies are important. There are different responsibilities in the cockpit. Basic training and new skills are needed. Exchange of information is very important. Transfer of knowledge is important as well. A safe operational environment is key. Train to be professional and not only train to fly the aircraft. This requires the involvement of the operator.

12 PANEL 7: SUSTAINABLE AVIATION FUELS (SAF)

Moderator:

Jan Petter Steinland, Director Strategic Analysis & Transformation, CAA Norway

Panel members:

Dietmar Bloemen, Sustainable Aviation Programme Manager, EASA

Brandon Roberts, Executive Director, Office of Rulemaking, Aviation Safety, FAA

Maarten Van Dijk, Co-founder, SkyNRG

Christopher Lorence, Chief Engineer, GE Aerospace

12.1 Notes

The aviation community faces similar challenges such as availability and ramping up SAF production. Helping the Community to manage this change, non-regulatory measures such as collaboration initiatives across the entire value chain (e.g. US CAAFI, EU RLCF Alliance) as well as regulatory measures will be needed to drive the necessary ramp-up forward. The panel discussed the different measures in place and how they can support the availability and wider use of SAF. The main points of discussion related to:

- The role of governments to scale up SAF production and availability considering incentives, regulations, and support to research and development;
- The importance of improving technologies and processes in relation to the need for efficiency;
- The role of collaboration to achieve at global level a wide availability of SAF necessary to reach the climate goals of 2050.

EASA

Besides the safety aspect a growing role on environmental matters is developing. EASA's environmental focus is to align with the EU's green deal objectives, and as such SAF is a key topic for the Agency, whereby the portfolio on SAF is rapidly increasing with main projects related to EASA's mandate in the ReFuelEU Aviation initiative, technical standards for SAF and support to SAF Research & Development in coordination with the European Commission. In addition, the EU is also establishing an environmental labelling scheme to be implemented by EASA to trigger sustainable choices for travellers which will take into account the positive effects of those Airlines which use SAF.

The ReFuelEU Aviation Regulation aims to promote the use of SAF in the EU. Although it is a regulation, including mandating fuel suppliers to delivers certain shares of SAF to EU Airports, it also includes incentivisation elements, such as the use of SAF allowances for airlines which may reduce to the cost of EU Emission Trading Scheme (ETS) compliance. The EU regulators decided that via the ReFuelEU regulation a modest mandatory volume of SAF will create certainty for SAF producers to invest in production capacity which would allow the SAF market to develop and grow in the EU.

It is important to discuss SAF at global level, the EU and US could support other regions in developing policies and frameworks, which would allow those regions to boost the uptake of SAF. Harmonizing frameworks in the interest of a large uptake of SAF at global level may also need to be discussed.

An agency of the European Union

It will be key for regulators and countries around the world to work together and ensure that robust policy frameworks are in place to facilitate the uptake of SAF taking into account the climate targets. A good monitoring mechanism allowing to track progress towards the 2050 Climate goals in relation to the uptake of SAF may further mitigate the risk of not achieving the targets on time.

In order to scale up SAF, we need as many SAF types as possible to enter the market, as this may further improve availability and could lower prices. Governments can support SAF developers to develop new SAF types, feedstocks and production methods by reducing the development costs by funding research and development. The EU has the Horizon Europe fund SAF R&D and EASA has recently launched its SAF Clearing House project which aims to facilitate new SAF types resulting from research projects to enter the market by guiding the SAF producers through the SAF qualification process, necessary to ensure a safe airworthiness of those new SAF types.

FAA

FAA targets 3 billion gallons of SAF capacity by 2030. The approach is mostly towards incentivising rather than regulation. The incentivizing tools in the US relate to providing tax reductions for buying SAF as well as the US Inflation Reduction Act which incentivizes more SAF production. FAA sees itself more in a role of providing support to industry and US policy, making sure SAF can be scaled up and made available.

Investment to research foundations is critical for scaling up SAF and such investments have been worthwhile in the US.

SkyNRG

SkyNRG has being pioneering SAF since 2009. Started as a supplier now a producer. Their mission is to replace as much fossil fuel as possible.

SkyNRG welcomes the ReFuelEU Aviation regulation as regulatory certainty is key to justify investments. Horizons for making an investment can be made when incentives are there. A sufficiently stable framework needs such government intervention and can cover regulations and incentives. Both sides of the Atlantic have working systems. The EU approach is introducing a 25-year perspective. Similar in the US however the timeframe is not the same. Other regions will need to follow.

We need to step up other feedstock SAF technologies to meet future demands. There are no production facilities available today to scale them. Amongst many pathways Power to liquid will be the one in most demand in the 2040's. This will be the one we will need to scale.

Giving Grants to a weak business case is maybe not always the best option or use of financial resources. An approach of giving loan guarantees is a much better way for governments to foster new development based on more solid business cases.

GE

GE has decades long experience on biofuels. Reference was made to a commercial test flight with 100% SAF on flight. Actively working on standards supporting the evolution of SAF considering safety aspects.

SAF is proven to be equivalent to regular fossil jet fuels and GE has demonstrated its safe operation and this the real challenge is to increase the volume of SAF. Both approaches, to promote use of SAF, used in the US

An agency of the European Union

and EU, work and the EU and US are far ahead from the rest of the world. Global harmonisation on SAF policies will also be important. Meeting demand in the coming decades will be challenging.

Technology has made huge improvements. Accelerating technologies such as the open fan engine. Regulators have been supporting novel technologies. Using the engine/aircraft technology of today and just adding SAF to those technologies may not solve the climate issue by 2050. Different technology pathways are an important part along with SAF. Our primary concern in this journey is safety with a strong emphasize on continuously improving efficiency as renewable energy sources should be used with the most efficient technologies.

Questions

In case the SAF industry fails to deliver, should regulators consider a form of demand control and limit the number of flights? Robust policy frameworks as well as global collaboration between all actors should be the main focus on ensuring aviation can decarbonize rather than considering a reduction of flight. Let's not forget that other solutions such as electric/hybrid technologies should also be considered.

Conclusion

1. Availability at large scale of SAF has been identified as the main challenge in order to allow aviation to reduce its impact on climate change.
2. Collaboration between stakeholders and policy frameworks are needed to promote the uptake of SAF. Governments and regulators across the world will need to work together on the necessary incentives and regulations needed to ensure sufficient SAF production and uptake. The EU and the US have been introducing SAF policy frameworks providing regulatory certainty and incentives to SAF producers and users.
3. Further research and development in the domain of SAF is needed considering more available SAF feedstocks, better production methods and more efficient engine technologies compatible with SAF.

An agency of the European Union

13 PANEL 8: PROTECTION OF PRODUCTS AND AVIATION ORGANISATIONS FROM CYBERSECURITY THREATS: EASA'S AND FAA'S PATHS TO RESILIENCE

Moderator:

Joan Serra, Manager Regulatory Affairs Europe, GAMA

Panel members:

Gian Andrea Bandieri, Section Manager Cybersecurity in Aviation & Emerging Risks, EASA

Victor Wicklund, Acting Director, Policy & Standards Division, Aircraft Certification Service, FAA

Arnold Hoessler, Senior Director Quality & Standards, Technical Fleet Management - Deutsche Lufthansa AG

Sean Sullivan, Chief Engineer Cabin Systems/Network Systems/Product Security, Boeing

13.1 Notes

The panel touched upon the protection of products and aviation organizations from cybersecurity threats. The steps taken by EASA and FAA to ensure cyber security resilience in their respective jurisdictions have been discussed, but also the perspective and experience of industry organizations when dealing with cyber threats at a global scale and the importance of international harmonization and alignment in rules and regulations.

The protection of the aviation system from cybersecurity threats is becoming increasingly important, given the high level of interconnection of all elements such as aircraft, ATM surveillance stations, airports, maintenance facilities, airline control centres, etc. Regulators are therefore required to organize an adequate response at both product and organization level.

On the product side, a lot has been achieved since the FAA tasked ARAC to address the issue of Aircraft Systems Information Security/Protection (ASISP) back in 2016. The ARAC provided recommendations which have already been recognized in Europe and introduced in the European framework for product certification. This sets a great precedent for transatlantic collaboration in the field of cybersecurity. In the US, the cybersecurity regulation for products is in the plan rulemaking plan. In the meantime, FAA is issuing Special Conditions for products.

On the product side, EASA has implemented some of the FAA's ARAC recommendations which have now been into effect since 2021. On top of that, EASA has gone through rulemaking to introduce the so-called Part-IS (Information Security) that tackles the organizational response to cyber security threats. Part-IS follows the principles of safety management systems with requirements such as risk assessments, reporting, etc. that will now conform an information security management system (ISMS). The EU wanted to have a systemic approach, ensuring that aviation remains and increases resilience, is able to deliver safe operations even under attack. EASA has gone beyond product requirements and created a holistic framework to address cyber threats that also impact aviation organizations. The system interconnection is bringing in a new class of risk. In the scope of Part-IS, there are both competent authorities and organisations because they are part of the same system, and the EU wants to create a trusted aviation system through the regulation. EASA is also working on research and capacity building to follow the evolution.

The role of the FAA is quite different from that of EASA in the EU. Another agency with the US Government is technically the 'risk management agency for cybersecurity in aviation' and that is the Department of Homeland Security and specifically the Transportation Security Administration (TSA). The TSA has advanced several organizational cybersecurity requirements over the past year that apply to operators and airports with pending considerations for manufacturers. TSA has primary responsibility for this issue, whereas FAA's responsibility stops at the "skin of the aircraft".

The Lufthansa group has an international footprint and cybersecurity is not new to DLH as it is already facing an incredible amount of cyberattacks a year (2.8 billion is the last figure). For the time being the impact on operational safety have been limited. Lufthansa is building upon what has been made, the protection of the business aspects, to develop compliance to Part-IS.

Sean Sullivan from Boeing highlighted that in order to protect the system and to do so more effectively, it is essential that the rules and standards are harmonised between the US and the EU. Speaking for all manufacturers, even though Boeing and Airbus are competitors in the marketplace, when it comes to cybersecurity, we are partners because we have a common interest in making sure the aircraft are secure.

Gian Andrea Bandieri from EASA added that there are requirements for Instructions of Continued Airworthiness (ICA) in Part-21. There is now a common understanding that ICA should deal with information security. As regards the experience that EASA has gained so far in the cybersecurity of products, EASA moved from Special Conditions to requirements in CS and the introduction of specific guidance material in the AMC 20-42. EASA is working to adapt this material, which was originally designed to meet the safety requirements of large aircraft, to other classes of aircraft.

Arnold Hoessler from Lufthansa expects that there will be a convergence between IT and operations. The question is how to integrate the two functions.

Sean Sullivan from Boeing complemented that the threat landscape of cybersecurity in aviation is a very different from traditional IT. The aircraft architecture is peculiar and requires specific knowledge. The risk assessment in cybersecurity is based on capability, knowledge, and access. It is a different approach to traditional safety risk assessment that needs be understood.

The panel discussed that cybersecurity threats do not know borders when having a globally connected international aviation system, i.e. US manufactured aircraft operating in Europe and vice versa. The design requirements are or can be harmonized between EASA and FAA. Regarding transatlantic cooperation on emerging threats related to organizations such as operators or maintenance, it may be a bit more challenging, also considering the different responsibilities in the US.

Regarding other regulators, Sean Sullivan from Boeing stated that together with the FAA it has to be determined how to engage with regulators capitalising on what has been done so far and without creating unnecessary burdens.

Gian Andrea Bandieri from EASA explained that EASA has reached out to other regulators outside EU on what concerns Part-IS (US, Canada, Israel, Brazil).

Referring to questions from the audience, it was confirmed that EASA will comply with Part-IS itself. There are specific provisions for authorities including EASA.

Concerning Airworthiness Directives related to cybersecurity issues and to avoid that their publication will increase the risk disclosing sensitive information, it was replied that discovered vulnerabilities are treated very confidentially to avoid disclosure of sensitive information. EASA may issue Sensitive Security Airworthiness Directive (SSAD).

Regarding compliance with cybersecurity requirements of existing aircraft, EASA explained that AMC 20-42 contains provisions to assess changes and consider cybersecurity objectives when necessary. FAA has a similar approach and, if needed, Special Conditions are applied.

As regards regulations and AMC/GM supporting scalability, it was replied from the FAA that different approaches for various classes of aircraft have been taken. EASA complemented that scalability is taken into consideration, both from the organisation and product side.

The inter communication between aircraft/ automatic deconfliction is one of the topics discussed between regulators at this moment.

In reply to the question whether the TC Holder the risk owner for a cybersecure aircraft, FAA replied that the TC holders have to play a large role. They have to issue aircraft network security operator guidance (ANSOG) and operators have to develop and maintain an Aircraft Network Security Program. Boeing complemented that it provides the Aircraft Network Security Operator Guidance (ANSOG) but is not sharing with operators all the protection means that have been introduced in the aircraft.

Another question related to how FAA and EASA ensure that manufacturers perform a periodic review of already certified aircraft. It was answered that the process is already in place and that regulators work closely with the manufacturers, and the manufacturers with the operators. In addition, Boeing stated they monitor the threat landscape.

The final question was if universities/ organisations are fostering the development of future cybersecurity professionals. This was agreed with by the panel members.

An agency of the European Union

14 CLOSING PLENARY: OUR PATH TO SAFETY AND SUSTAINABILITY

Moderator:

Ed Bolen, President and CEO, National Business Aviation Association (NBAA)

Panel members:

Patrick Ky, Executive Director, EASA

Lirio Liu, Executive Director, Aircraft Certification Service, FAA

Tiago Pereira, Acting President-Director, ANAC Brazil

Mark Searle, Global Director, Safety, IATA

14.1 Notes

The plenary looked back on the discussion of the Conference on safety, innovation and sustainability and the take aways.

Patrick Ky highlighted that innovation brings an increased level of safety. The key question is how we can support innovation. He explained the partnership contracts offered by EASA, which are not only available to EU industry. They allow to share information and create win-win partnerships. A second important point is rule changes; they should be anticipated. As regards sustainability, Patrick referred to the Sustainable Aviation Fuel (SAF) as a global challenge, requiring working together. Mechanisms have been established in the EU and US, e.g. clearing houses.

Lirio Liu raised the aspects of equivalency and transferability. We may have differences in need and in the language we use. However, we will come together if we have the same intent. Regulations take time, they react to innovation. Nevertheless, it is important that we consider the whole system, and not look at one component only. Even if we follow different development streams, experience shows that there is similar output at the end.

Tiago Pereira explained that ANAC follows the discussions with other authorities and industry. ANAC defines its role so as to provide support without interrupting innovation. An example is the Embraer Eve project.

Mark Searle focussed on safety trends and risk analysis. Some issues are still not developed. It is important to analyse and interpret data and information so as to make aviation safe. IATA is working with EASA and FAA to identify emerging threats, COVID and unstable approaches are examples. There are such success stories but they are ad hoc, and not really formalised. For example, taking the topic of unruly passengers, information is available at various places but not a full data safety set. Another area is Dangerous Goods. There are different reports in the world but no coherent risk picture. Mark concluded by stating that we should not compete on safety data but share it. There are still challenges for people to understand all the data, sharing will help.

Lirio Liu presented the Commercial Aviation Safety Team (CAST) as a success story of industry and authority working together to improve safety. CAST exists since more than 20 years and has demonstrated its positive impact. Data is shared, occurrences could be reduced. The FAA Aviation Safety Information Analysis and

Sharing (ASIAS) programme was one output of CAST. Another important aspect is communication with the public. The public is only aware of occurrences, doesn't perceive successful management of safety every day. We need to better communicate about our safety successes.

Patrick Ky complemented that the general public considers aviation as safe, so there may be no need to conduct additional communication. However, there might be a need on sustainability. EASA conducted a study on the societal acceptance of Urban Air Mobility in Europe. A survey was conducted in 7 big cities on the acceptability of drones and urban air mobility. 85% saw it as a positive step, 75% would use it. Safety was the number one concern; operations should be as safe as commercial air transport (CAT). Hence, CAT is considered to be very safe. This is the result of our common work. The number two concern was environment, in particular noise and wildlife. As regards sustainability, we need to better explain where we want to be. There are very technical subjects, for example SAF. We should have the public recognising that we, aviation, can be greener than today. We can share the vision, e.g. that in 2040 aviation will be green. This would also convince more people from the young generation that aviation is an attractive work environment. We need simple messages; we need to be more transparent. The ecolabel EASA is working on might be an example. In concluding, Patrick Ky shared information on a survey on holidays in France. 80% planned to take an airplane. This shows that the public is still relying on the aviation system. In fact, maybe the young generation is not so critical of aviation?

Ed Bolen concluded that for sustainability there may not be a single solution, but holistic approach needed.

The panel continued to discuss SAF. Ed Bolen asked how to upscale SAF production to bring down costs. Tiago Pereira stated that a strong SAF industry is needed to have the product available. Mark Searle made the point that roadmaps are needed to show the future trajectory, where we are going to. Important is to have a level playing field, do not compete on the acceptability of SAF.

Regarding batteries, it was concluded that the same safety principles also apply to them.

The panel continued to discuss questions from the audience. Regarding safety complacency, it was replied that we can never be complacent. There are always incidents around the world. We always need to be vigilant. The IOSA programme might be a good example to keep safety levels high.

Regarding upcoming eVTOL operations, the audience was informed that there is the intent to have a certified platform for the Olympic Games in Paris in 2024. This would be the real start of eVTOL operations. Paris will allow to learn from operations, from then one we can see a milestone every year. In the US, first operations are planned in 2028.

The plenary concluded that the societal benefits of aviation are recognised. Communication, sharing of data and information and innovation will enhance aviation and foster its further development.

An agency of the European Union

15 TECHNICAL SESSION: ELECTRIC AND HYBRID PROPULSION - A BRIDGING TECHNOLOGY

Presentations by

Frank Steffens, Head of Department - Environment & Propulsion Systems, EASA

Caspar Wang, Special Assistant, Product Policy Management for Emerging Aircraft & General Aviation, Aircraft Certification Service, FAA

15.1 Notes

Sustainability is a key target for the aviation industry. The EU and US have strong ambitions with regards to reduction of emissions in all domains, including aviation.

Electric and hybrid propulsion systems (EHPS) can not only be a support to the greening of aviation but also bring new business opportunities.

EHPS encompasses a wide variety of architectures on all class of products.

The session highlighted the importance of a strong and early collaboration, not only between authorities, as done since years, but also with the industry. Together to build the framework to enable electric and hybrid propulsion to come to market in a safe manner.

Harmonization between authorities is starting by concentrating on the intent of the requirements and their associated means of compliance using industry standards.

Authorities' knowledge development is also one of the pillars authorities are working on to enable EHPS.

A question was raised by the audience on the scope of engine TCs – i.e. engine only or including other propulsion system components like batteries, or all certified as part of the aircraft. Authorities mentioned the need to keep flexibility to support the industry and not to block innovation.

Another question related to ensuring a fair level playing field between EU and US. Authorities agree that the rule intent needs to be sufficiently similar. However, we cannot not only look at the certification and cooperation requirements. The whole aviation structure in the end has to provide an equivalently safe environment on both sides of the Atlantic.

The audience was seeking for assurance that harmonized rules and implementation will finally be in force at both authorities at the same time. The speakers reiterated the efforts made and also the will to be fully transparent on this journey. Industry standards are one of the pillars authorities will rely on.

Infrastructure on the ground is a key enabler for EHPS introduction. Authorities are also looking at those topics. Some certification aspects are taking this into account, such as battery chargers.

It was concluded that harmonization efforts should be pursued by the authorities. Regular workshops should be held in order to provide updates to the industry and other authorities.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

16 TECHNICAL SESSION: SMS IMPLEMENTATION IN DESIGN AND MANUFACTURING

Presentations by

Juan Anton, Section Manager - Design Organisations & Policy Issues, EASA

Victor Wicklund, Acting Director, Policy & Standards Division, Aircraft Certification Service, FAA

Christophe Robin, Head of Design, Daher

Tony Fazio, President, Fazio Group International

16.1 Notes

EASA

- EU Regulations introducing SMS requirements for design and production organisations became applicable on 7th March 2023.
- First package of AMC/GM published in December 2022, mainly for Industry. Second package expected Q3 2023, mainly for the competent authority.
- Findings on novelties compliance to be closed before 7th March 2025.
- Initial focus on SMS compliance. Later on SMS maturity and effectiveness.
- Standard SM-0001 Version B is a Means of Compliance to the safety management elements of the production and design management systems. Subject to the EASA/National Aviation Authority (NAA) oversight.
- EASA inspectors have completed a comprehensive training programme.
- An SMS Workshop for Design Organisation Approval (DOA) and Production Organisation Approval (POA) planned for 25th October 2023.
- SMS implementation policies developed by EASA to support the oversight of DOAs/POAs.

FAA

- FAA published on 11th January 2023 a Notice of Proposed Rulemaking (NPRM) on SMS. Focus on Part 135 operators, § 91.147 air tour operators, and certain holders under Part 21.
- FAA currently dispositioning comments (approx. 200).
- FAA SMS activities for design & manufacturing:
  o Proposed Advisory Circular included with NPRM.
  o Voluntary SMS Program.
  o FAA preparing for proposed 14 CFR part 5:
    ▪ Training of workforce.
    ▪ Engaging industry through SMS Design & manufacturing Focus Group and working group for Standard SM-0001.

Fazio Group International

- Standard SM-0001 developed for implementation of SMS in Design, Manufacturing and Maintenance.
- Sponsored by relevant Aviation Associations, including observers from ICAO and regulatory authorities.
- SM-0001 Version B recognised by EASA as Acceptable Means of Compliance for DOA and POA.

- Working on SM-0001 Version C (balloting expected by September2023).
- Accepted by FAA, TCCA and ANAC on a voluntary basis for design and manufacturing organisations.
- Once the revision of the document in progress is completed and accepted by the four Certification Management Team (CMT) regulatory authorities (i.e. ANAC, EASA, FAA, TCCA), the intent is to hand the standard over to a traditional standard setting body.
- ICAO has updated its SMS Implementation Guidance (ICAO Doc 9859) to include guidance on Industry Standard in Chapter 9.2.
- Currently seeking additional recognition as other authorities adopt SMS regulations.

Daher
- SMS addresses the new challenges for which the aviation design and production community needs to be proactive to meet the societal expectations – so Daher does not see SMS implementation as "mere compliance to the rules" but rather as a solution or a tool to proactively identify these societal changes and mitigate the associated emerging risks.
- New products with new technologies need to satisfy the market in a timely manner, while being safe during their life cycle.
- SMS should be applied consistently across different legal entities of the same organisation, which allows a corporate strategical approach to the future safety management needs and mitigation of risks in the business.
- SMS should be applied consistently and in partnership with authorities on both sides of the Atlantic.
- SMS should focus of "real life" safety:
  o System engineering: Design + Certification + Production of a given platform.
  o Common language through company's functions (key safety parameters).
  o Monitoring during operation to identify adverse trends.
  o Operations and Continuing Airworthiness providing feedback into Initial Airworthiness.

The **main questions** raised through Slido during the technical session were about:
- The need to have a suitable and scalable SMS depending on the volume and criticality of the activities within the organisation as well as the size of the organisation – regulatory provisions available for that purpose exist. In the EU, SMS is mandatory for DOA, POA, the manufacturing of the ETSOA and the design of APU. FAA may exclude some organisation or activities, depending on the review of the comments from the NPRM.
- EASA recognition of FAA approved maintenance organizations will be discussed in the bilaterals between the USA and EU as an SMS is not to be mandated to these organizations in the US whereas SMS is mandatory in the EU.
- SMS should not disrupt the certification process of the product - SMS seen more as a managerial tool about the establishment of a company safety management strategy, having later an impact on the delivery of safe products (i.e. design and monitoring of the products in operations, considering the feedback from the end user). There is no SMS approval per se; recognition of an SMS is not directly linked to the validation of the product or the safety significance of the modification(s) on the product.

An agency of the European Union

- The FAA will consider the recognition of SM.0001 with upcoming revised Part 5 for Design and Manufacturing organisations.

It was concluded that FAA and EASA will continue to work on SMS implementation and mutual recognition on both sides of the Atlantic Ocean. SM.0001 is a useful tool to foster "implementation" and "recognition". Daher confirmed SMS is proven to be a management tool to manage societal expectations and challenges.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

17 TECHNICAL SESSION: EVOLUTION OF THE MAINTENANCE COOPERATION UNDER THE BASA

Presentations by

Karl Specht, Principal Coordinator Organisation Approvals, EASA

Larry Fields, Acting Executive Director, Flight Standards Service, FAA

Rainer Lindau, Vice President Quality Management, Lufthansa Technik

Christian Klein, Executive Vice President, ARSA

17.1 Notes

The speakers presented the different perspectives of industry and authorities on the evolution of US-EU Aviation Safety Agreement cooperation, with particular focus on SMS implementation, information security and digitalisation:

- All parties highlighted the advantages of the US-EU Aviation Safety Agreement cooperation, promoting one system with reduced surveillance burden for industry and authorities. In the recent years globalisation is declining in favour of increased national interests (Brexit was mentioned as one example bringing additional regulatory burden), while the aviation industry benefits from conditions of multilateral acceptance.

- A resource challenge is identified for authorities to cope with the fast growth of aviation industry.

- Enhancing the US-EU Aviation Safety Agreement by improving the transparency and coordination with industry could help to improve confidence.

- Increased collaboration between authorities is considered essential, with the need to focus on equivalent safety outcomes.

- SMS scope and applicability is similar between EASA, ANAC and TCCA, while it differentiates with the FAA to a level which requires special conditions in the US-EU Aviation Safety Agreement:

  o In the EU regulatory system, the implementation time of SMS for Approved Maintenance Organisations (AMOs) requires SMS compliance demonstration by 2 December 2024. However, this requirement is not immediately applicable to Approved Maintenance Organisations (AMO).

  o In the US regulatory system, the SMS is already applicable to Part 121 Operators. A Notice of Proposed Rulemaking is extending the applicability to other entities and facilitating voluntary SMS programmes. However, it is not directly applicable to AMOs, being left to voluntary implementation.

  o As a consequence, EASA and FAA agree that a regulatory difference on SMS which needs to be addressed in the Annex 2 (Maintenance Annex) and in the Maintenance Annex Guidance (MAG).

- Information Security risks are tackled in different manners by the various authorities and its possible effects on the US-EU Aviation Safety Agreement are still under consideration:

  o In the EU regulatory system, a transversal regulation Part-IS was issued, applicable to all domains (applicability 22 February 2026), to protect the aviation system from information security risks. This regulation does not directly apply to organisations under the US-EU Aviation Safety Agreement.

An agency of the European Union

- o The FAA focuses on cyber risks that could impact product safety. Several US Government Agencies are involved in this process.
- Digitalisation: the speakers shared their views that developments in digital technologies and solutions enable safety and performance improvements. The main concern is how this development will be tackled by aviation authorities worldwide. Only a harmonized and mutually accepted approach will be able to facilitate the digitalisation process.

The panellists discussed various topics, taking advantage of questions raised by the audience:

- Bilateral Agreement Developments: Industry would welcome additional bilateral agreements which foster multilateral acceptance of parts and maintenance services. As an example, the possible benefit of a bilateral agreement between EU and UK in maintenance was raised by the audience. When considering options on additional bilateral agreements, both FAA and EASA clarified that a government-to-government agreement is not initiated by the regulator but instead political will. Industry and associations may have a voice with States to raise interest for bilateral agreements which may later trigger a mandate for the regulator to start negotiations at technical level. In the example of the UK, there is currently no mandate to negotiate a bilateral agreement in maintenance and it is not foreseen to have UK CAA involved in the MMT.
- SMS:
  - o It was clarified that in the US regulatory system, SMS will be only implemented in maintenance organisations on a voluntary basis, or when a special condition is incorporated in Annex 2 of the US-EU Safety Agreement and the Maintenance Annex Guidance (MAG).
  - o Existing elements in the FAA system are a solid foundation for SMS development. The resource challenge for the FAA was highlighted due to high number of organisations potentially affected by the SMS implementation. Guidance is being developed for industry, together with training for inspectors.
  - o The FAA looks forward to a cooperation with EASA on SMS implementation in maintenance to further strengthen the existing bilateral ties.
  - o The need to change vision, develop leadership for safety, adopt a change management process is highlighted, using the guidance and principles available (e.g. ICAO Annex 19). The organisations need to identify their risks to address them in the maintenance processes.
  - o Some concerns are raised by the perceived SMS imposition for maintenance organisations, particularly for small organisations. The scalability is an essential factor to consider. It is acknowledged that SMS is not a "one size fits all" concept but has to be customised to size and complexity.
  - o A concern was also raised by the asynchronous implementation of SMS in the EU regulations for design, production and maintenance organisations, which introduces additional burden. An alignment is possible at industry level for those organisations holding multiple approvals, considering that the SMS can also be in place and approved before the regulatory deadline.
- Information Security:

An agency of the European Union

- A concern is highlighted that EASA may need to coordinate with multiple US government agencies when discussing information security matters, however the FAA is committed to closely work with EASA to facilitate this process.
- EASA and FAA clarified that the intent of the US-EU Aviation Safety Agreement relationship is to avoid as much as possible special conditions, to reduce impact on industry. An effort will be done to recognise each other systems and avoid new special conditions on information security aspects.
- Digitalisation
  - It was shared that new technologies do not necessarily require new regulation. In fact, the regulation is not intended to say how to achieve a target but to provide a framework.
  - Aviation needs authorities to agree on a harmonised and mutually recognised approach on digitalisation.

In conclusion, a way forward was anticipated on the SMS development. The process for amending the US-EU Safety Agreement, particularly Annex 2 has been initiated, which will define a new special condition for SMS applicable to US based maintenance organisations. The result will be used as a basis for the necessary update of the MAG, i.e. change 10.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

18 WORKSHOP: INITIAL CERTIFICATION AND CONTINUED OPERATIONAL SAFETY

Co-leads:

Daan Dousi, Air Operations Implementation Section Manager, EASA

Tom Sciortino, Acting Director, Compliance and Airworthiness Division, Aircraft Certification Service, FAA

Presenters:

Daan Dousi, Manager Air Operations Implementation Section, EASA

Mathilde Labatut, Human Factors Expert, EASA

Gaetano Sciortino, Acting Director Compliance & Airworthiness Division, Aircraft Certification Service, FAA

Elisabeth Martin, Vice President Enterprise Safety & Mission Assurance, Boeing

Chad Douglas, Executive Director, Airplane Safety Engineering – BCA Development Programs, Boeing

Tanja Harter, Technical Affairs Board Director, European Cockpit Association (ECA)

18.1 Notes

The Workshop addressed the following topics:

- Using manufacturer and operational data to update regulatory and guidance materials;
- Actions taken regarding Human factors events;
- EASA initial certification and continued operational safety;
- FAA Advisory Circular - AC 120-123 on Flightpath Management;
- Boeing Safety Management System;
- Boeing in service safety process

EASA

EASA is working on a better integration of Human Factors (HF) in the continued airworthiness (CAW) process. Following safety recommendations and a lessons learned exercise, an implementation plan was established in 2022. Said plan, with corresponding actions, is aimed at strengthening the air operations and CAW regulatory requirements, processes, and methodologies in the context of HF by:

- Better capturing flight crew human performance issues linked to flight deck design, operational procedures or operator training, or a combination thereof. A safety information bulletin (SIB) was issued to strengthen the existing reporting obligation.
- Analysing said identified human performance issues by both operator and design approval holder to determine possible HF issues linked to design that may show an unsafe condition. The newly developed certification memorandum (CM) provides criteria and guidance to design approval holders for performing a more meaningful analytical human factor analysis and methodology. The CM will complement the certification process and be applied in CAW.
- Ensuring corrective actions for confirmed unsafe conditions are implemented by the design approval holder, if necessary.
- Both SIB and CM content should be transposed into regulation in the medium term.

An agency of the European Union

- Additional actions foresee safety promotion and use of the EASA Datas4safety platform to research existing HF issues linked to design.

EASA also explained that it is recognised that there are some limitations to the assumptions made on HF in the initial airworthiness process. Human performance issues may be influence by flight deck design, operational procedures, or operator training, or from a combination thereof. In service experience, additional testing and further analysis may show that certain initially accepted assumptions are not accurate in practice. Thus, certain conditions initially demonstrated as safe, are revealed by experience as unsafe.

FAA

FAA recently published an advisory circular (AC 120-123 Flightpath Management) that covers:
- Policy and procedure;
- Manual flight ops;
- Managing automated system;
- Pilot monitoring;
- Energy management.

Moreover, FAA added several HF experts into three existing groups, thereby creating a robust system on Human Factor expertise:
- Aircraft Certification: Policy & Standards Division;
- Aircraft Certification: Compliance & Airworthiness Division;
- Flight Standards: Aircraft Evaluation Division (AED).

FAA highlighted that as part of their lessons learned activity, a number of recommendations had been issued. Among them it is worth highlighting that HF assumptions for certification cannot be delegated. The FAA therefore added HF for validation activities.

FAA also highlighted the 'InfoShare' initiative that provides a central forum for a broad range of FAA stakeholders to discuss/share, on a non-jeopardy basis, HF related observations/experiences, feedback, data, best practices, including:
- Pilot response assumptions relied on by the FAA and manufacturers;
- Design and certification of transport category aircraft;
- Human factors related to design, training and operational use of pilot/aircraft interface and interaction;
- Effects that new technologies have on pilot interactions with aircraft systems.

Another important source of information about HF is the LOSA (Line Operational Safety Audit). The FAA highlighted that their HF experts are observing flights on regular route to monitor normal flight operations.

FAA also highlighted the certification policy harmonization efforts with EASA under CATA WL EASA-003.

Boeing

Boeing had developed several processes to capture safety data, such as:
- Implementation of SMS and reporting culture in Boeing. That creates an environment where people can report more comfortably.

An agency of the European Union

- Established in service safety process to evaluate serious events and look for any safety concern.

Main goals of the global aerospace safety initiative:
- Connecting industry safety management system to ensure using the same language;
- Global regulatory engagement;
- Enhance flight operations and management;
- Operational training initiative.

Design life cycle:
- Strengthening operational procedures and training connection to technical design and assessment;
- Using in-service data and observations to validate crew assumptions.

ECA

HF are key for the safe operation of an aircraft. It is important to understand that aircraft systems frequently use the same "sound or indication" for different types of failures. This may lead to errors linked to HF.

Operational information and feedback provided by the operator to the manufacturer can help in understanding these potential threats. ECA provided an example on new engines with different cooling times where taxi lasts less than one minute (small/regional aerodromes). The pilots need to let the engine run for two minutes on the stand; however this may have an impact on safety because ramp personnel may not be aware of this operational need to keep the engine running.

ECA expressed strong appreciation for the possibility for flight crew to report and contribute to flight safety in the context of HF issues linked to flight deck design, operational procedures, or training.

Conclusion

EASA and FAA have a different approach to capture the same HF issues linked to design. EASA, supported by ECA, is strengthening the systematic reporting obligation of operators whereas the FAA is relying on regular 'InfoShare' events to capture the same feedback on HF issues linked to design. Boeing has strengthened its SMS and reporting culture and established an in-service safety process to capture and evaluate events in consultation with the FAA, including HF issues linked to design. Going forward the EASA and FAA approaches are to be monitored and experiences to be shared.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

An agency of the European Union

19 FLASHTALKS

19.1 THE FUTURE OF SUSTAINABLE AIR MOBILITY IS HERE – CREATING SYNERGIES BETWEEN TECHNOLOGICAL INNOVATION AND REGULATION

Speaker:

Alastair McIntosh, CTO, Lilium

Notes:

- E-VTOL is the most significant innovation in decades that can foster decarbonization and environmental development/greener aviation.
- Crucial is the role of the regulators that have to support the opportunity for it to materialize, between securing high level of safety and new market entrances/new types of transportation to become accessible to all.
- The expectations of the electric aviation in Lilium are to ensure greater efficiency, low system vibrations and system redundancy.
- The adapted fans on the Lilium's e-VTOL product gave a lot of flexibility building radically better ways of moving.
- This electrical take-off and landing jet has no other moving parts, no vertical tails, not additional parts associated to hydraulic system in movement.
- Demonstrated capabilities have been shown through flight testing in an extensive test campaign.
- Lilium is aiming to perform final flight tests in 2024 followed by certification in 2025. Lilium is pursuing dual certification with EASA and FAA.
- For Lilium e-VTOL is just an entry gate for an even deeper journey of the sustainable network, opening direct connections to create alternative high-speed regional mobility.
- Four elements will allow to progress development and to ensure a proper level of safety.
  1. Collaborative approach, based on expertise, transparency and trust. This creates synergies and a significant value for all.
  2. Engagement between regulators and industry players on e-VTOL development, e.g. through task forces, working groups, incubators/concentration efforts.
  3. Industry collaboration through standardization bodies (e.g. EUROCAE as an example).
  4. Risk and performance-based approach to e-VTOL.

19.2 REGULATORY ENVIRONMENT

Speaker:

Brandon Roberts, Executive Director, Office of Rulemaking, Aviation Safety, FAA

Notes:

Transparency and harmonisation in a global aviation system and how to do more

- FAA acknowledges its challenges around the Office of General Council (OGC) policy on Ex Parte communications.
- New policy is in work with the aim to encourage conversation up front in a transparent manner with more pre-rulemaking discussions and a quicker formal rule-making process.

Recognition on the pace of change with innovation
- Innovation is at its highest pace ever and is only getting faster.
- Time to market continues to shorten.
- How to do more faster with no impact on safety levels.

Highlight on current innovative projects and how to implement the above
- Powered lift,
- Drones and Beyond Visual Line of Sight (BVLoS),
- Traditional aviation and SMS implementation and Modernization of Special Airworthiness Certificates (MOSAIC).

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

19.3 FOSTERING CONFIDENCE

Speaker:

Kim Lascell, Vice President, Airworthiness Assurance, Gulfstream

Notes:
- Aviation safety is paramount and the bilateral safety agreements are instrumental.
- The value of having mutual, bilateral agreements can eventually minimize economic burden as avoiding duplications and multiplying the efforts.
- What regulators can do is to look at the bilateral agreements and validation/certification processes from a more strategical point of view with the aim to build confidence.
- On this a brief story was shared reporting how the outcome of an audit meeting scheduled very close to the end of a certification process was revealing an issue that, even if not requiring a design change, though was requesting documentation changes. This could have been avoided if making the best use of the validation process that implies:
  o Detection in advance of systemic issues;
  o Depending on the areas of validation, ensure full interaction on a deeper level by regulators and industry;
  o Reaching out to regulatory authorities immediately and request advanced information.
- In discovering important compliance issues, the reciprocity on which the relations between authorities is based can be essential in supporting the work.

An agency of the European Union

- The validation process is also crucial when considering the limited expertise available on the market.
- How can we collaborate together to walk this path of aviation safety?
1. Mutual confidence;
2. Communication, meaning "Are we communicating in a proper way to validate and support confidence?"
3. Capability, consistency;
4. Transparency, meaning "Are you sharing with the other regulatory party?"
5. Collaboration.

19.4 FUTURE CONNECTIVITY

Speaker:

Rachel Daeschler, Certification Director, EASA

Notes:

Today's connectivity to the aircraft is based on 1940's technology and is starting to show its age and saturation. ATM is routed through the traditional ground networks in aviation specific physical networks over segregated spectrum. Operators use a mix of commercial satellite communications networks and ATM networks. Regional differences in standards utilised also adds a level of complexity to the system.

There is a need for more reliable and quicker systems with a vastly increased data volume. The Certification Management Team (CMT) group of authorities have developed a vision for the future of connectivity by bringing together all stakeholders.

A distinction is given to safety and non-safety communications based on a system with demonstrated performance requirements and the efficient use of spectrum with worldwide interoperability. The use of commercial solutions is preferable than dedicate aviation networks but commercial systems within a controlled manner.

Today's status is still in the early stages with a low maturity level. Next steps are to promote the idea outside of the CMT group for worldwide interest and future adoption.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

19.5 WHO WE ARE

Speaker:

Christian Klein, Executive Vice President, ARSA

Notes:

- Trainer association for Approved Maintenance Organisations (AMO), repair stations. Who we are and how we act? Representation of maintenance and repair organisations and associated consortium.

An agency of the European Union

- Current shortage of resources and the risk is to lose around 43,000 thousand technicians in the future. Many barriers to enter in the field as so technical and so specific. The time necessary to grow in the technical domain in maintenance is long as it is essential to learn all the details. There is a wide range of work. Also, the workforce average age is around 55, as it takes time to become expert. Finally, the pandemic brought many into retirement.
- Regulatory barriers: Part 147 just updated to make it much more performance based.
- Military transition can help as many from military can work in civilian matters.
- How can we enhance school education introducing specific paths/programmes for maintenance? Engagement also with FAA on this educational aspect.
- Try to focus attention on the problem resolution and not on the problems per se.
- We can be proud of safety records.
- Are we considering new items attracting on aviation, like sustainability?

The slide can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

19.6 EASA'S NEW RULEMAKING PROCESS

Speaker:

Gerli Rebane, Legal Adviser, EASA

Notes:

The Flash Talk focused on the revision of the EASA Rulemaking Procedure and its main aspects.

The new procedure is more flexible and performance-driven, allowing for adjustments based on the nature and complexity of the task. It also emphasises the importance of impact assessment, transparency, integration with aviation safety management, and efficient implementation for the future-proof development of regulatory material.

19.7 ICAO ENGAGEMENT

Speaker:

Caitlin Locke, Acting Deputy Executive Director, Flight Standards Service, FAA

Notes:

- Need for harmonisation is bringing regulatory agencies closer.
- ICAO Standards and Recommended Practices (SARPS) create interoperability.
- ICAO brings all domains together so that we are not missing anything, focusing on safety.
- FAA engages with ICAO at different layers, for example through experts in panels or through secondments. Key question is when to engage.

An agency of the European Union

- The pace of SARPS development can be slow at times, FAA changes paradigms and ICAO may need to change as well.

The slide can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

19.8 ENVIRONMENTAL TRANSPARENCY- DISCLOSING FLIGHT EMISSIONS TO PASSENGERS

Speaker:

Sebnem Erzan, Head of Travel Sustainability & Transport, Global Partnerships, Google

Notes:

- Lack of a single standard to represent the impact of air travel makes it difficult for consumers to close the say-do-gap, and hinders industry's accountability to decarbonise.
- Consumers do care: searches around sustainability in Air Travel have evolved from broad terms to specific brands and solutions and are expected to grow in volume.
- Consistent, transparent and ubiquitous representation of the climate impact of air travel is therefore crucial in answering consumer demand for sustainability information.
- Regulators play a significant role in enabling passengers making more sustainable choices by encouraging and validating emissions disclosure.
- Online technology platforms play a key role in growing public's interest and comprehension of carbon emissions labelling.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en

19.9 INSPIRING THE NEXT GENERATION TO JOIN OUR INDUSTRY

Speakers:

Alberto Cunial, Jekaterina Jansone, Noel Wagner and Vasileios Papageorgiou, Junior Professionals, EASA

Notes:

The industry needs new and young talents – but what attracts young generation in aviation? How can we inspire them to join the industry? Some of the EASA junior professionals talked about their passion in aviation and motivation to join the Agency. They also highlighted the key points that make an organisation interesting for young people, which are:

- Working for an organisation that serves a purpose;

- Longevity, sustainability, value creating organisation that inspires young professionals to progress in this domain;
- Openness to new ideas & feedback, embracing open dialogue;
- Create opportunities for young people to join your organisation and keep the talent.

The slides can be found here:
https://www.easa.europa.eu/en/downloads/138093/en
The video can be found here:
https://www.youtube.com/watch?v=-u65z3hTw6Q