EASA
European Union Aviation Safety Agency

Federal Aviation Administration

Looking Forward – Ensuring the Continued Evolution of Global Aviation Safety

Your safety is our mission.

An Agency of the European Union

Plenary A: Safety and the role of regulators in innovation

Key themes:

→ Industry expectations: learning and moving together

→ Identify required expertise/skills/mindset early

→ Global initiatives, embarking the rest of the world

→ Standards as means of harmonisation

→ Accommodating new entrants while considering financing aspects

Plenary A: Safety and the role of regulators in innovation

Outcomes:

→ Working together (industry with regulators and among regulators) upfront and at global level is key to address new challenges coming at an increasing pace

→ For enhancing innovation, regulators should ensure that the new entrants share our safety culture. Sharing information and sharing targets is a key success factor

→ Safety regulators 'fit' to face forthcoming challenges by creating a resilient regulatory framework based on industry standards

Plenary B: The challenges of technology

Key themes:

→ Growing digital technologies give new opportunities for regulators and industry to improve their processes and quality of work

→ Digital technologies are the basis for more and more automated systems

→ A more digitalized and connected world expands the surface of exposure to cyber-threats

Plenary B: The challenges of technology

Outcomes:

- → Pace of innovation poses a challenge for industry and regulators
- → At the same time, it drives collaboration and evolution towards more objective and principle based regulations
- → Need to acquire skills and manage resources
- → Focus is shifting from pure product orientation towards the full environment (ops, infrastructure, production and automation)
- → New players and sectors can bring new knowledge to aviation > we need to be receptive
- → Cybersecurity threats shall be managed with a global harmonized and systematic approach (not only product oriented, but covering the whole system – processes, awareness, training…)

Panel 1: Automated flight deck

Key themes:

→ Relationship between automation, human and safety

→ Human centric cockpit supported by the right level of automation

→ Toward reduced crew operation, with the right training

Panel 1: Automated flight deck

Outcomes:

→ Need of resilient systems

→ Balance between automation and pilot skills

→ Societal acceptance of reduced crew

→ Explore the regulatory landscape to enable more automation (airworthiness, operations, training)

→ Maintain confidence in aviation by ramping up in increased automated flight operation while maintaining safety

Panel 2: Virtual Towers

Key themes:

→ Virtual Towers is the good example of how availability of safe and secure digital data in real time will change how ATM services will be delivered

→ Humans will still be in the centre. Remotely provided services will secure jobs and ensure stability to the individuals in the system

→ Virtual Tower is opening up remote areas by ensuring that small places are connected by safe and secure aviation services

Panel 2: Virtual Towers

Outcome:

→ Cyber security is an issue that has to be taken seriously when implementing Virtual Towers as it is dependent on availability of digital data

Panel 3: Effective oversight of SMS

Key themes:

→ SMS needs evolve further, according to the level of maturity in the respective countries > several (assessment) tools are available

→ Improving SMS is a gradual process in need of a change of culture, collaboration and a risk-based approach

→ Industry plays an important role in initiating the setting of standards, since rules alone will not suffice

Panel 3: Effective oversight of SMS

Outcomes:

- → SMS will ease bringing aviation activities to the next level of safety
- → Developing risk management capabilities is a cultural change for both industry and regulators, away from the traditional compliance approach
- → Sharing of experience & data as well as trust & global approach among all the players will allow effectiveness in terms of SMS implementation and oversight
- → SMS industry standard is welcome to support the SMS implementation

Panel 4: Safety intelligence going global

Key themes:

→ What can we gain from putting intelligence together at global level

→ What would such a collaboration look like

→ What are the challenges

Panel 4: Safety intelligence going global

Outcomes:

→ Sharing data at global level is a challenge because of different legal and technological approaches to the regional programmes

→ The benefit comes from sharing the intelligence both bilaterally between ASIAS (FAA) and D4S (EASA) and global for the GASP

→ Establishing common methodologies and algorithm for joint intelligence activities will be an effective approach

Panel 5: Challenges and opportunities with E-VTOL

Key themes:

→ An approach integrating all aviation domains (OPS, airworthiness, licensing)

→ Airspace integration

→ Regulatory compliance and flexibility needed

→ Harmonisation of safety cases

Panel 5: Challenges and opportunities with E-VTOL

Outcomes:

- → E-VTOL is recognised as substantial development and huge future market, with safety being a pre-condition. Social acceptance will need to be built up over time
- → A balance between innovation, safety and unhindered access to expertise are prerequisites for successful projects
- → An integrated regulatory approach will be needed by cooperation between industry and regulators, where enough room for flexibility to adapt to short-term developments should exist

Panel 6: Aircraft maintenance – Evolution of the Maintenance Review Board (MRB) process

Key themes:

- → More efficient ways of working, ensure participants' contribution to add value
- → Continuous optimization of the MRB process and of the Maintenance Steering Groups (MSG) 3 tool over the years
- → The value of the joint participation of authorities, type certificate holders and operators to the International Maintenance Review Board Policy Board (IMRBPB) activities

Panel 6: Aircraft maintenance – Evolution of the Maintenance Review Board (MRB) process

Outcomes:

- Acknowledgment of the benefits provided by the MRB Process / MSG-3, especially in the framework of IMRBPB activities
- To look beyond the pure MRB process to address all the scheduled maintenance Instructions for Continuing Airworthiness (ICA) in a consolidated way
- Need for the operators to have a more end-to-end process covering all the ICA data
- Encourage use of new digital tools
- Embrace new maintenance technologies
- Potentially extend IMRBPB scope beyond MRB Process / MSG-3 aspects only

Panel 7: Interoperability of aircraft between different oversight systems

Key themes:

→ Challenges with

- → different regulatory and import requirements
- → acceptance of electronic records
- → agility and resources of authorities to conduct airworthiness reviews

Panel 7: Interoperability of aircraft between different oversight systems

Outcomes:

→ Different regulatory requirements will remain

→ ICAO may be used to achieve some harmonisation, for example to facilitate the acceptance of electronic records

→ Bilateral agreements are key to address some of the issues

Panel 8: Leveraging synergies to reduce duplicative certification activities

Key themes:

- The use of Industry Consensus Standards as a way to drive harmonisation
  - Leads to more acceptance between authorities
  - Allows focus on the risk areas
  - Continuous updates will shorten time to include new technologies
- Workplans help industry to plan the validating authorities involvement
    - Concurrent vs sequential becomes less important
    - Reduces duplication

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Panel 8 Leveraging synergies to reduce duplicative certification activities

Outcomes:

- → Workplans need structured management oversight to ensure benefits are realised throughout the programme
- → Mutual acceptance is a constantly improving goal
- → Harmonisation of requirements and guidance helps level the playing field
- → True risk based regulations drive harmonisation
- → Constantly moving forward requires in built time to reflect to ensure realisation of benefits

Future of the Safety Conference

Working Group on the Future of the Conference

- Develop a set of **recommended options** for the future of the conference.
  - Address the interval and the substantive focus of the conference.
  - Assess the pros, cons, risks, returns, and benefits of various options for the conference.
  - Consider possible enhanced global outreach for the conference.
  - Provide recommendations to FAA/EASA management for decisions.
  - Present results at next year's conference.
- **Proposed Timeline:** Establish the Working Group within two months following the conference with recommendations due by February 2020.

Potential Proposals for Consideration by the WG

Currently, the Conference:

→ Provides an excellent opportunity to exchange information particularly on issues where the authorities are cooperating.
Future evolution: Content might be more targeted/specialized.

→ A forum for EASA and the FAA to communicate with industry and other CAAs.
Future evolution: Conference participation could continue to expand.

→ Serves to provide for networking and in depth discussions among aviation safety regulators and industry professionals.
Future evolution: Enhance opportunities for networking/ancillary meetings.