EASA
European Aviation Safety Agency

EASA strategy and actions on cybersecurity

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An agency of the European Union

How cyber activities are being coordinated?

The *“European Strategic Coordination Platform (ESCP)”*

Composed of Members and Observers:

- **Members:**
  - **European Commission (DG-MOVE, DG-CNECT, DG-GROW and DG-HOME)**
  - **Other EU Agencies and Organisations (EUROPOL, EASA, ENISA, CERT-EU, EUROCONTROL, SESAR)**
  - **European Defence Agency**
  - **States (6 EU Member States, ECAC)**
  - **EU relevant Aviation industry associations (ASD, CANSO, ACI, A4E, IATA, GAMA, ECA...)**
- **Observers: ICAO, FAA, TCCA, AIA, NATO…**

Strategy for cybersecurity in aviation

- **Assumptions:**
  - **The aviation system and its assets are not inmmune to cyber threats.**
  - **Aviation stakeholders understand that a common strategy is necessary.**

- **The desired Aviation System needs to be:**
  - **A trustworthy and dependable environment (rely on services and information provided by others).**
  - **A system-of-systems capable to adapt and withstand new threats without significant distruptions.**

- **The Direction (Guiding Policy):**
  - **Make aviation an evolutionary cyber-resilient system.**
  - **Make aviation a self-strengthening system (built-in security).**

Strategy for cybersecurity in aviation

- **The Objectives:**
  - **In order to improve cyber-resiliency:**
    - **Operational systems can fail gracefully (continuity of essential functionalities).**
    - **Operational systems adopt multi-layered protection measures (hinder progress of attack).**
    - **Protection measures established along functional chains.**
    - **Aviation stakeholders understand trans-organisational connections and collaborate.**
  - **In order to make aviation a self-strengthening system (built-in security):**
    - **Design practices prevent unintended use of functions exposed to users.**
    - **Design practices assess the risks of loss of security attributes, with protection measures and adaptive solutions.**
    - **Assurance and scrutiny processes allow security effectiveness for the whole life cycle.**
    - **The level of protection against external causes is periodically re-evaluated.**

Information Sharing (ECCSA)

ECCSA (European Centre for Cybersecurity in Aviation)

<u>**Objectives:**</u>

- **Promote networking and information sharing among organisations and authorities, promoting a cybersecurity culture and trust environment.**
- **Increase the understanding of risks and threats, and overall situational awareness.**

Done in coordination with CERT-EU (Computer Emergency Response Team of the European Union)

A Pilot-Phase started in March 2018, with a limited number of stakeholders and authorities.

- **Objective was to define membership and information sharing rules, services to be provided, infrastructure needed, etc.**

The Pilot Phase finished in March 2019, with the operational phase gradually starting at that point.

International Cooperation and Harmonization

ICAO SSGC (Secretariat Study Group on Cybersecurity)

- This is where all cybersecurity activities are coordinated at ICAO level.
- Participants: ICAO, EU Commission, EASA, ACI, CANSO, ICCAIA, IATA, Eurocontrol, Authorities from Brazil, Canada, Dominican Rep., Finland, Israel, Italy, Kenya, Malta, Netherlands, Romania, Singapore, South Africa, Switzerland, UK and USA.
- Essential to ensure coordination of these activities with the ESCP so a common European voice is taken to ICAO.

Other initiatives

- **FAA (USA, Federal Aviation Administration):** Mainly on regulatory activities and standards.
- **Military Sector:** Cooperation with NATO and European Defence Agency.
- **ECAC:** Through the “ECAC Cyber Study Group”.
- **Other EU Agencies:** Covering other transportation modes (ERA, EMSA).

Cooperation with ENISA and Eurocontrol

Cooperation with ENISA:

- **Participation in cybersecurity exercises organised by ENISA.**
- **Participation and co-organisation with ENISA of training sessions on cybersecurity.**

Cooperation with EUROCONTROL:

- **On the operational aspects of information exchange.**
- **On simulation of cyberattacks on Data Link Communications.**
- **On the development of a Shared Trans-Organisational Risk Management framework.**
- **On the establishment of the EA-ISAC (European Aviation Information Sharing and Analysis Centre).**
- **On common training initiatives.**

Regulatory activities

Rulemaking Task RMT.0648 (NPA 2019-01 published on 22 Feb. 2019)

- Focused on aircraft certification.
- The objective is to ensure a robust product design to avoid cybersecurity risks.
- Harmonized with the FAA.

Rulemaking Task RMT.0720:

- Focus on ensuring that organisations and authorities are able to manage cybersecurity risks, including the need for an **Information Security Management System (ISMS) and occurrence reporting**.
- For organisations in all aviation domains and for competent authorities.
- **Consistent with other EU requirements** (NIS Directive for essential services, Security Reg. 2015/1998).
- **Challenges:**
  - Consistency of regulatory and oversight requirements
  - Coordination within the States (NAAs, security authorities, ministries…)

RMT.0720 (for organisations)

- NPA (Notice of Proposed Amendment) to be published on the EASA website in the first half of June 2019, followed by external public consultation.
- EASA could issue the final Opinion proposing a rule to the European Commission by summer 2020.
- Adoption process would be followed at the Commission, with the involvement of the Member States.
- Final rule not be expected to be adopted before summer 2021.

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Thank you

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