

ICAO Security Week 2024

Information Security and Cybersecurity Section

Organizational Structure

The following is a general organizational structure for legislative, regulatory, and operational entities in the sector.



Concept of Cybersecurity

Cybersecurity is a collection of practices and technologies designed to protect computer systems and networks from cyber threats and attacks. These threats can come in the form of malicious software, hacking, data theft, or any other harmful electronic activities.

Information Security Principles



Importance of Cybersecurity in the Aviation Sector

Infrastructure Protection

- Ensuring the uninterrupted operation of air navigation systems and ticketing without disruption or hacking.

Data Protection

- Maintaining the confidentiality of passenger information such as passports and payment details.

Flight Safety

- Preventing cyberattacks that could disrupt aviation systems and endanger the lives of passengers.

Trust and Reputation

- Avoiding the loss of customer trust due to data breaches or system outages.

Cybersecurity Threats to Aviation



Hacking into aircraft control systems



Manipulating ground systems and airports



Leaking sensitive data



Attacks on navigation systems



Threats to in-flight internet services



Supply chain attacks



Attacks on global aviation networks



Role of the Cybersecurity Department To protect aviation systems:

- Install cybersecurity tools (firewalls, antivirus, encryption) for data confidentiality, integrity, and availability.
- Monitor and analyze cyber threats.
- Protect sensitive data by following national classification regulations.
- Secure networks and communications.
- Manage access and identity with policies like multi-factor authentication (MFA).
- Provide ongoing security training and awareness.
- Follow national and international standards, such as ISO 27001.
- Conduct regular penetration testing and vulnerability assessments.

Steering Committee



Here is a general example of the information security organizational structure, where an internal committee has been formed called the **Steering Committee**:

- **Cyber Security Department** :This department is directly under the CEO's office and is independent of any other administrative or technical unit. There is a clear separation of duties between information security and information technology.
- **Steering Committee**: This committee is responsible for reviewing, approving, and monitoring information security initiatives within the organization. Its goals include improving spending on information security, managing infrastructure, and reducing security risks.

General Tips for the Aviation Sector employees



Cybersecurity
Awareness and
Ongoing Training



Strict Adherence
to Approved
Procedures and
Protocols



Commitment to
Employee Health
and Safety



Effective
Management of
Aerial Threats



Compliance with International
Laws and Regulations



Engagement with
Modern Technology



Comprehensive Emergency
Response Planning

THANK YOU