



The European Organisation for Civil Aviation Equipment
L'Organisation Européenne pour l'Équipement de l'Aviation Civile

INTERNATIONAL AERONAUTICAL INFORMATION SECURITY ACTIVITY MAPPING SUMMARY

This document is the exclusive intellectual and commercial property of EUROCAE.

It is presently commercialised by EUROCAE.

This electronic copy is delivered to your company/organisation for internal use exclusively.

In no case it may be re-sold, or hired, lent or exchanged outside your company.

ER-017

March 2018

9 – 23 rue Paul Lafargue
93200 Saint-Denis, France
Web Site: www.eurocae.net

Copyright European Organization for Civil Aviation Equipment
Provided by IHS
No reproduction or networking permitted without license from IHS
Full document details: EUROCAE ER-017 2018

Licensee=/, User=,
Not for Resale,

Documents
Tel: 33 1 40 92 79 136
Email: eurocae@eurocae.net
Document Sharing Hub

INTERNATIONAL AERONAUTICAL INFORMATION SECURITY ACTIVITY MAPPING SUMMARY

This document is the exclusive intellectual and commercial property of EUROCAE.

It is presently commercialised by EUROCAE.

This electronic copy is delivered to your company/organisation for internal use exclusively.

In no case it may be re-sold, or hired, lent or exchanged outside your company.

ER-017

March 2018

FOREWORD

1. This document was prepared by EUROCAE Working Group 72 “Aeronautical Systems Security”.
2. EUROCAE is an international non-profit making organisation in Europe. Membership is open to manufacturers and users of equipment for aeronautics, trade associations, national civil aviation administrations, and, under certain conditions, non-European organisations. Its work programme is principally directed to the preparation of performance specifications and guidance documents for civil aviation equipment, for adoption and use at European and world-wide levels.
3. The findings of EUROCAE are resolved after discussion amongst Members of EUROCAE and in collaboration with RTCA Inc, Washington D.C., and/or the Society of Automotive Engineers (SAE), Warrendale PA, U.S.A., through their appropriate committees.
4. EUROCAE performance specifications and other documents are recommendations only. EUROCAE is not an official body of the European Governments. Its recommendations are valid as statements of official policy only when adopted by a particular government or conference of governments.
5. Copies of this document may be obtained from:

EUROCAE
9 – 23 rue Paul Lafargue
93200 Saint-Denis
France

Telephone: +33 1 49 46 19 65
Email: eurocae@eurocae.net
Website: www.eurocae.net

Document released under the terms of the EUROCAE License

TABLE OF CONTENTS

FOREWORD		ERREUR ! SIGNET NON DEFINI.
TABLE OF CONTENTS		II
CHAPTER 1	INTRODUCTION	3
CHAPTER 2	INTERNATIONAL AERONAUTICAL INFORMATION SECURITY ACTIVITY MAPPING	ERREUR ! SIGNET NON DEFINI.
APPENDIX A	WG-72 MEMBERSHIP	22
IMPROVEMENT SUGGESTION FORM		26

CHAPTER 1

INTRODUCTION

Cyber security incidents are increasing in frequency, magnitude and complexity, and have no border. Civil aviation is an attractive target for cyber criminals while new technologies such as e-enabled aircraft, new generation CNS/ATM systems and drones are changing the risk landscape of the aviation system.

Furthermore, the rationalisation and concentration of the aviation IT infrastructure and the multiplication of network connexions will create new vulnerabilities.

There is a concern that the aviation system is insufficiently protected against cyber threats and that there is an urgent need to develop a holistic response.

The EASA High Level Meeting Cybersecurity in Civil Aviation, held in November 2016, concluded that to ensure both a level playing field and a balanced sharing of risk management, cybersecurity in aviation will require risk- and performance-based sectorial regulations that benefit from industry standards to the greatest extent possible (in so-called 'Bucharest declaration').

EASA and EUROCAE therefore jointly organised a workshop on 31 May 2017 to discuss current activities and future regulatory and standardisation needs with key stakeholders from industry, airspace users, Member States, European institutions and academia.

This document has been prepared by EUROCAE WG-72 following the workshop to list ongoing and planned standardisation, regulatory and other relevant activities.

The WG-72 leadership has consulted several other standard-developing organisations active in the field of cybersecurity to understand the ongoing and planned activities. The results are documented in the present report.

It does not assume to be exhaustive nor up-to-date over time, but lists those activities that have been notified until beginning of March 2018.

The originating organisations remain responsible for the planning and execution of their work programme and should be contacted directly for further information on any of the listed activities.

CHAPTER 2

INTERNATIONAL AERONAUTICAL INFORMATION SECURITY ACTIVITY MAPPING

Organisation	Charter/Description	Ref	Sector	Status	Link ¹
ARINC	ARINC Technical Report 811, "Commercial Aircraft Information Security Concepts of Operation and Process Framework", July 2005	ARINC 811		Published	
ARINC	Guidance for Security of Loadable Software Parts Using Digital Signatures	ARINC 835	Airlines	Published	
ARINC	ARINC Report 852, "Guidance for Security Event Logging in an IP Environment", June 2017	ARINC 852		Published	
ARINC	AEEC Technical Application Bulletin ABN-35A, "Considerations for the Incorporation of Cyber Security in the Development of Industry Standards", February 2011	ARINC ABN-35A		Published	
ASTM	F3178-16 Standard Practice for Operational Risk Assessment of Small Unmanned Aircraft Systems	F3178-16		Published	
ASTM	F3201-16 Standard Practice for Ensuring Dependability of Software Used in Unmanned Aircraft Systems	F3201-16		Published	
ATA	ATA Spec 42: Aviation Industry Standards for Digital Information Security: Spec 42 provides recommendations on standardized methods to achieve the appropriate level of security for an application primarily relying on digital identities	ATA Spec 42	Airlines	Published	
CEM	Common Methodology for Information Technology Security Evaluation	CC v3.1. Release 5		Published	http://www.commoncriteriaportal.org/cc/

¹ All links last accessed 21 March 2018.

Organisation	Charter/Description	Ref	Sector	Status	Link ¹
CEN	Technical Committee on 'Cybersecurity and data protection' (CEN-CLC/TC 13) was created to address the growing demand for standards in this field. In 2018, CEN-CLC/TC 13 will develop standards for data protection, information protection and security techniques with specific focus on cybersecurity, covering all concurrent aspects of the evolving information society	CEN-CLC/TC 13		2017 Created	https://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:2307986&cs=1E7D8757573B5975ED287A29293A34D6B
CEN	Organizational frameworks and methodologies, including ICT management systems;	CEN-CLC/TC 13		2018	https://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:2307986&cs=1E7D8757573B5975ED287A29293A34D6B
CEN	Data protection and privacy guidelines	CEN-CLC/TC 13		2018	https://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:2307986&cs=1E7D8757573B5975ED287A29293A34D6B
CEN	Process and product evaluation schemes	CEN-CLC/TC 13		2018	https://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:2307986&cs=1E7D8757573B5975ED287A29293A34D6B
CEN	ICT security and physical security technical guidelines	CEN-CLC/TC 13		2018	https://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:2307986&cs=1E7D8757573B5975ED287A29293A34D6B
CEN	Smart technology, connected objects, distributed computing devices and data services	CEN-CLC/TC 13		2018	https://standards.cen.eu/dyn/www/f?p=204:7:0::::FSP_ORG_ID:2307986&cs=1E7D8757573B5975ED287A29293A34D6B

Organisation	Charter/Description	Ref	Sector	Status	Link ¹
CEN	EN 16495:2014 is part of the WP of CEN/TC 377 'Air Traffic management'. This European Standard defines guidelines and general principles for the implementation of an information security management system in organisations supporting civil aviation operations	EN 16495 update	ATM	In Progress	
CEN	EN 16495:2014 is part of the WP of CEN/TC 377 'Air Traffic management'. This European Standard defines guidelines and general principles for the implementation of an information security management system in organisations supporting civil aviation operations	EN 16495:2014 is part of the WP of CEN/TC 377	ATM	Published	https://www.en-standard.eu/csn-en-16495-air-traffic-management-information-security-for-organisations-supporting-civil-aviation-operations/
EASA	European Strategic Coordination Platform (ESCP) - Executive Committee: Steering of the ESCP Work Streams and decision making on executive level.		All Air Transport	Ongoing	-
EASA	ESCP - Strategy Work Stream: Developing a coordinated strategy for European aviation about Cybersecurity in Aviation. Expected delivery date: September 2018		All Air Transport	Ongoing	-
EASA	ESCP - Regulatory Processes Work Stream: Coordinating the discussion about Rule Making Task.0720 (aka "horizontal rule", addressing cybersecurity objectives for aeronautical organisations). Expected delivery of draft NPA: Mid of 2018, expected delivery of Opinion: Mid 2019, targeted Implementing Rule publication date: Mid of 2020; AMC development is expected to be finished by Mid 2020 (depending also on the availability of Industry Standards).		All Air Transport	Ongoing	-

Organisation	Charter/Description	Ref	Sector	Status	Link ¹
EASA	ESCP - Shared Trans-Organisational Risk Management (STORM) Work Stream: Coordinating the development of common risk management principles and considerations, e.g. for standardisation by industry. Expected Delivery Dates: 2019		All Air Transport	Ongoing	-
EASA	Rule Making Task.0648: Update of Certification Specifications and AMC to include Cybersecurity objectives and considerations for products. Expected delivery date: Draft - Second half of 2018 (TBC), AMCs for be published by 2019/2020, (TBC) - depending also on the availability of Industry Standards		All product development related aviation sectors	Ongoing	-
ECAC	ECAC DOC 30 CHAPTER 14 - RECOMENDATIONS AND GUIDANCE MATERIAL		Air Transport	Published - classified as "ECAC for official use only".	Contact ECAC Secretariat or ECAC Member State national civil aviation authority. Shared with ICAO and available on ICAO cybersecurity repository as WP37 to Aviation Security Panel 28 of 2017.
ECAC	High level excel spreadsheet "Overview of aviation information assets"		Air Transport	Published - classified as "ECAC for official use only"	Contact ECAC Secretariat.
ECSSO	Overview of existing Cybersecurity standards and certification schemes v2	WG1 – Standardisation, certification		Published	http://www.ecss-o.org.eu/documents/publications/5a31129ea8e97.pdf
ENISA	Securing Smart Airports	TP-07-16-070-EN-N	Aerodrome	Published	https://www.enisa.europa.eu/publications/securing-smart-airports
ETSI	CYBER QSC Extended Roadmap Related Material	Deliverable Type: MI	TC CYBER	Drafting Stage	
ETSI	ETSI mTLS protocol demonstration	Deliverable Type: MI	TC CYBER	Drafting Stage	