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Information Security Guidance for Continued Airworthiness

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FOREWORD

This document was prepared by Special Committee 216 (SC-216) and EUROCAE Working Group 72 (WG-72). It was approved by the RTCA Program Management Committee (PMC) and by the EUROCAE Council on September 10, 2020.

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- analyzing and recommending solutions to the system technical issues that aviation faces as it continues to pursue increased safety, system capacity and efficiency;
- developing consensus on the application of pertinent technology to fulfill user and provider requirements, including development of minimum operational performance standards for electronic systems and equipment that support aviation; and
- assisting in developing the appropriate technical material upon which positions for the International Civil Aviation Organization and the International Telecommunications Union and other appropriate international organizations can be based.

The organization's recommendations are often used as the basis for government and private sector decisions as well as the foundation for many Federal Aviation Administration Technical Standard Orders.

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TABLE OF CONTENTS

1 INTRODUCTION.....	1
1.1 PURPOSE.....	1
1.2 SCOPE.....	2
1.3 HOW TO USE THIS DOCUMENT.....	3
1.4 CONVENTIONS OF THIS DOCUMENT.....	4
1.5 RELATIONSHIP TO OTHER DOCUMENTS.....	4
1.6 GENERAL CONSIDERATIONS.....	5
1.6.1 Design Approval Holder (DAH).....	5
1.6.2 Instructions for Continued Airworthiness (ICA).....	5
1.6.3 Contracted Maintenance and Service Providers.....	7
2 AIRBORNE SOFTWARE.....	9
2.1 GENERAL.....	9
2.2 OPERATIONAL SECURITY MEASURES.....	11
2.2.1 Reception.....	11
2.2.2 Creation/Modification.....	12
2.2.3 Storage.....	12
2.2.4 Media.....	12
2.2.5 Software Tools.....	13
2.2.6 Software Distribution.....	13
2.2.7 Data Loading.....	14
2.2.8 Confidentiality.....	14
2.2.9 Incident Management.....	14
2.3 DAH Responsibilities.....	14
2.4 OPERATOR RESPONSIBILITIES.....	14
3 AIRCRAFT COMPONENTS.....	17
3.1 GENERAL.....	17
3.2 OPERATIONAL SECURITY MEASURES.....	17
3.2.1 Storage.....	17
3.2.2 Transport.....	17
3.2.3 Repair.....	17
3.2.4 Tools.....	17
3.2.5 Decommissioning.....	17
3.2.6 Incident Management.....	18
3.3 DAH RESPONSIBILITIES.....	18
3.4 OPERATOR RESPONSIBILITIES.....	18
4 AIRCRAFT NETWORK ACCESS POINTS.....	19
4.1 GENERAL.....	19
4.2 OPERATIONAL SECURITY MEASURES.....	19
4.3 DAH RESPONSIBILITIES.....	19
4.4 OPERATOR RESPONSIBILITIES.....	20

5	GROUND SUPPORT EQUIPMENT (GSE)	21
5.1	GENERAL.....	21
5.2	OPERATIONAL SECURITY MEASURES.....	21
5.2.1	Equipment Security and Operations Management.....	21
5.2.2	Access Control.....	22
5.2.3	Usage.....	23
5.2.4	Storage.....	23
5.2.5	Incident Management.....	23
5.2.6	Lifecycle Management.....	23
5.2.7	Decommissioning.....	23
5.3	DAH RESPONSIBILITIES.....	23
5.4	OPERATOR RESPONSIBILITIES.....	24
6	GROUND SUPPORT INFORMATION SYSTEMS	25
6.1	GENERAL.....	25
6.2	OPERATIONAL SECURITY MEASURES.....	25
6.2.1	Connection.....	25
6.2.2	Access Control.....	25
6.2.3	Data Exchange.....	26
6.2.4	System Hardening Of Ground Support Information Systems.....	26
6.2.5	Repair.....	27
6.2.6	Decommissioning.....	27
6.2.7	Incident Management.....	27
6.2.8	Lifecycle Management.....	27
6.3	DAH RESPONSIBILITIES.....	27
6.4	OPERATOR RESPONSIBILITIES.....	28
7	DIGITAL CERTIFICATES	29
7.1	GENERAL.....	29
7.2	OPERATIONAL SECURITY MEASURES.....	30
7.3	DAH RESPONSIBILITIES.....	30
7.4	OPERATOR RESPONSIBILITIES.....	31
8	AIRCRAFT INFORMATION SECURITY INCIDENT MANAGEMENT	33
8.1	GENERAL.....	33
8.2	OPERATIONAL SECURITY MEASURES.....	33
8.3	DAH RESPONSIBILITIES.....	33
8.4	OPERATOR RESPONSIBILITIES.....	34
9	OPERATOR AIRCRAFT INFORMATION SECURITY PROGRAM	35
9.1	GENERAL.....	35
9.1.1	AISP Relation to ISMS.....	35
9.1.2	AISP RELATION TO SECURITY MANAGEMENT SYSTEM.....	36
9.2	OPERATIONAL SECURITY MEASURES.....	37
9.3	DAH RESPONSIBILITIES.....	37
9.4	OPERATOR RESPONSIBILITIES.....	37

10 OPERATOR ORGANIZATION RISK ASSESSMENT	39
10.1 GENERAL.....	39
10.2 OPERATIONAL SECURITY MEASURES.....	39
10.3 DAH RESPONSIBILITIES.....	39
10.4 OPERATOR RESPONSIBILITIES	39
11 OPERATOR PERSONNEL ROLES AND RESPONSIBILITIES	41
11.1 GENERAL.....	41
11.2 OPERATIONAL SECURITY MEASURES.....	41
11.2.1 Skills Required for Operator Information Security Management.....	41
11.2.2 Aircraft Information Security Specialist.....	41
11.2.3 Specific Task Skills.....	42
11.3 DAH RESPONSIBILITIES.....	43
11.4 OPERATOR RESPONSIBILITIES	43
11.4.1 General.....	43
11.4.2 Aircraft Information Security Center.....	43
12 OPERATOR PERSONNEL TRAINING	45
12.1 GENERAL.....	45
12.2 OPERATIONAL SECURITY MEASURES.....	45
12.2.1 Training, Awareness, and Competence.....	45
12.2.2 Education and Certification	45
12.3 DAH RESPONSIBILITIES.....	45
12.4 OPERATOR RESPONSIBILITIES	45
12.4.1 Training Organization.....	45
12.4.2 Scope of Training (General and Specific).....	46
12.4.3 General Training.....	46
12.4.4 Specific Training.....	48
12.4.5 Training Records.....	50
12.4.6 Regulatory Requirements for Operator Training.....	50
12.4.7 Recurrent Training.....	50
12.4.8 Organizational Communication regarding Aircraft Information Security.....	50
APPENDIX A MEMBER CHARTER	A-1
APPENDIX B AIRPLANE INFORMATION SECURITY PLAN (AISP)	B-1
APPENDIX C GLOSSARY OF TERMS	C-1
APPENDIX D ACRONYMS	D-1
APPENDIX E REFERENCES	E-1
APPENDIX F REVISION HISTORY - ED-204A/DO-355A	F-1

TABLE OF FIGURES

Figure 1-1: Aircraft Information Security Guidance 3
Figure 2-1: A Common Security Methodology for Electronic Software Distribution..... 10

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1 INTRODUCTION

This document is a joint product of two industry committees: the EUROCAE Working Group WG-72, titled “Aeronautical Systems Security” and the RTCA Special Committee SC-216, also titled “Aeronautical Systems Security”. WG-72 was formed to address information security and the overall Aeronautical Information System Security (AISS) of airborne systems in conjunction with related ground systems and environment, while SC-216 was formed more specifically to address information security for certification and operation of aircraft and its systems. The guidance provided by this document is intended to constitute an Acceptable Means of Compliance for approving information security aspects of Continuing Airworthiness activities performed by Design Approval Holders and Operators.

This document provides guidance for the operation and maintenance of aircraft and for organizations and personnel involved in these tasks. It is intended to support the responsibilities of the Design Approval Holder (DAH) to obtain a valid airworthiness certificate and aircraft operators to maintain their aircraft to demonstrate that the effects on the safety of the aircraft of information security threats are confined within acceptable levels. As all information security threats may have an intentional origin, this document also covers Intentional Unauthorized Electronic Interaction (IUEI).

1.1 Purpose

This document is a resource for civil aviation authorities and the aviation industry when the operation and maintenance of aircraft and the effects of information security threats can affect aircraft safety. It deals with the activities that need to be performed in operation and maintenance of the aircraft related to information security threats.

This document gives also guidance that is related to operational and commercial effects (i.e. guidance that exceeds the safety-only effects).

ED-204A / DO-355A is a companion document to ED-202A / DO-326A “Airworthiness Security Process Specification” and ED-203A / DO-356A “Airworthiness Security Methods and Considerations” that support security in the development and modification part of the airworthiness process.

Note 1: This document was developed in the European context of the European Aviation Safety Agency (EASA) Certification Specification CS-25 “Large Aeroplanes” and the United States context of Title 14 Code of Federal Regulations (14CFR) Part 25 “Transport Category Aircraft”. Tailoring of this guidance may be used in other regulatory contexts including but not limited to CS-23, CS-27, CS-29, CS-E, CS-P, Part 23, Part 27, Part 29, Part 33, and Part 35.

The most comprehensive possible area of the application of this guidance is deemed to be Large Transport Aircraft programs. However, this document does not make any assumptions about and is without prejudice to its applicability.

Note 2: The measures proposed in this document may be subject to commercial terms between DAHs and operators. It is recommended that DAHs incorporate these elements into their commercial offers, especially for service and support related topics.