



# Policy Statement

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**Subject:** Establishment of Special  
Conditions for Cyber Security

**Date:** MAR 6 2014

**Policy No:**  
PS-AIR-21.16-02

**Initiated By:**  
AIR-130

## Summary

This policy statement is intended to provide guidance to the Aircraft Certification Offices regarding the application of special conditions to address cyber security vulnerabilities in aircraft certification programs.

## Definition of Key Terms

In the text below the terms “must,” “should,” and “recommend” have a specific meaning that is explained in Appendix 1.

## Current Regulatory and Advisory Material

This policy statement does not require the issuance of special conditions for airworthiness and operational approval of field loadable software (FLS), aeronautical data bases, and the Aircraft Communications Addressing and Reporting System (ACARS). Other policies, standards, and guidance apply to FLS, aeronautical databases, and ACARS, such as FAA Order 8110.49 Software Approval Guidelines, AC 20-153A Acceptance of Aeronautical Data Processes and Associated Databases, ARINC 835 Guidance for Security of Loadable Software Parts Using Digital Signatures, ARINC 842 Guidance for Usage of Digital Certificates, and Spec 42 Aviation Industry Standards for Digital Information Security.

## Relevant Past Practice

Recent designs for aircraft systems have included connectivity to “non-governmental services” such as the internet, portable electronic devices, and commercial-off-the-shelf technologies that have not been certified and accredited for secure operations by a government authority. These designs can introduce cyber security vulnerabilities beyond the scope of current airworthiness regulations and traditional systems safety assessment methods typically used to show compliance with the airworthiness requirements located in Title 14 Code of Federal Regulations §§ 23.1301, 25.1301, 27.1301, 29.1301, 23.1309, 25.1309, 27.1309, 29.1309, 33.28, 35.15.

## Policy

The Federal Aviation Administration (FAA) will issue special conditions for initial type certificate (TC), supplemental type certificate (STC), amended TC, or amended STC applications for aircraft systems that directly connect to external services and networks under the following conditions:

1. The external service or network is non-governmental;
2. The aircraft system receives information from the non-governmental service or network; and,
3. The failure effect classification of the aircraft system is “major” or higher.

Non-governmental services that receive (read only) and do not transmit to aircraft systems do not require issuance of special conditions.

The following are examples of non-governmental services connecting to aircraft systems:

- Airport gate link networks (e.g., Gatelink);
- Public Networks (e.g., Internet);
- Wireless aircraft sensors and sensor networks;
- Cellular networks;
- Portable Electronic Devices (PEDs) and/or portable Electronic Flight Bags (EFBs) transmitting to aircraft systems.

## Effect of Policy

The general policy stated in this document does not constitute a new regulation. Coordination is needed between the policy-issuing office and the responsible certification office for the following:

- Using a method of compliance outside of this established policy; or,
- Not approving an applicant’s proposal that meets this policy.

Please contact Raymond De Cerchio, AIR-130, at 202-385-6348 if you have any questions.

## Implementation

This policy statement applies to those programs with an application date that is on or after the effective date of the final policy statement. If the date of application precedes the effective date of the final policy statement, and the methods of compliance have already been coordinated with and approved by the FAA or its designee, the applicant may choose to either follow the previously acceptable methods of compliance or follow the guidance contained in this policy statement.

## Conclusion

The FAA will consider revising the intent and content of this policy statement if other data are presented which are contrary to the guidance contained in this document.

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~~For~~ David W. Hempe

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Appendix 1

**Terms**

Table A-1 defines the use of key terms in this policy statement. The table describes the intended functional impact.

**Table A-1 Definition of Key Terms**

	<b>Regulatory Requirements</b>	<b>Acceptable Methods of Compliance (MOC)</b>	<b>Recommendations</b>
<b>Language</b>	Must	Should	Recommend
<b>Meaning</b>	Refers to a regulatory requirement that is mandatory for design approval	Refers to instructions for a particular MOC	Refers to a recommended practice that is optional
<b>Functional Impact</b>	No Design Approval if not met	Alternative MOC has to be approved by issue paper.	None, because it is optional