

Guidance

ATM Regulatory Compliance and Interoperability

CAP 670 APP05

1. Introduction

- 1.1 On 12th September 2023 the remaining articles of the Interoperability Regulation will be repealed in UK law.
- Article 4 Community Specifications
 - Article 5 DoC and DSU
 - Article 6 DoV (and TF) Article 6a alternative verification of compliance
 - Article 7 Safeguards
 - Annex II Essential requirements and Specific requirements
 - Annex III Constituents (Contents of DoC and DSU)
 - Annex IV Systems (Contents of DoV, including TF)
- 1.2 In the EU a new ATM conformity assessment framework is being introduced to replace the Interoperability Regulation, however the CAA is not currently in a position to fully impact assess this framework and its potential application in the UK.
- 1.3 The other Interoperability Implementing Rules (now UK Regulations) as listed below remain in force:
- UK Reg (EU) 1032/2006 Flight Data Regulation (COTR)
 - UK Reg (EU) 1033/2006 Flight Plan Regulation (IFPL)
 - UK Reg (EU) 633/2007 Flight Message Transfer Regulation (FMTP)
 - UK Reg (EU) 262/2009 Mode S Interrogator Regulation (MSI)
 - UK Reg (EU) 29/2009 Data Link Services Regulation (DLS)
 - UK Reg (EU) 1206/2011 Aircraft Identification Regulation (ACID)
 - UK Reg (EU) 1207/2011 Surveillance Performance and Interoperability Regulation (SPI)
 - UK Reg (EU) 1079/2012 Voice Channel spacing Regulation (VCS)

- 1.4 The CAA will still require ANSPs to continue to demonstrate compliance with the ATM 'systems and constituents' elements of the essential requirements in the Basic Regulation; the other Interoperability Regulations; and ICAO Annexes and CAP 670, to demonstrate that air traffic service equipment is fit for purpose as required by Article 205 of the Air Navigation Order.
- 1.5 For an interim period after 12th September 2023, the CAA will maintain the current status quo as far as possible, before establishing a new UK regulatory framework for ATM interoperability. Broadly, documentation will be required to be provided that will remain like that prior to 12th September 2023.
- 1.6 The CAA will therefore add new Acceptable Means of Compliance (AMC) to CAP 670 to require ANSPs to provide similar documentation. However, declarations for interoperability will no longer have a legal basis and under the current regulatory framework the CAA can no longer require declarations for interoperability to be provided, therefore Declarations of Verification and Declarations of Suitability of Use can no longer be used to demonstrate compliance.
- 1.7 A Technical File will continue to be used, together with a new Record of Verification and Manufacturer Summary of Compliance.

2. Record of Verification

- 2.1 This provides the evidence that verification has been carried out. ANSPs should note the specific requirements for verification in each of the Interoperability Regulations.

3. Technical File

- 3.1 The Technical File is substantially similar to the existing document but now refers to the Essential Requirements in the Basic Regulation (UK Regulation (EU) 2018/1139). The Technical File will cross-reference and provides complementary evidence to the Safety Case.
- 3.2 The Technical File will also include references to evidence of compliance with the other Interoperability Regulations. Annex 1 lists the relevant articles and annexes for which compliance is to be demonstrated. Compliance templates are already available for some of the regulations, and others will be introduced where required.

4. Manufacturer Summary of Compliance

- 4.1 An ANSP could previously use a DSU to presume manufacturer compliance. This will no longer be the case although it may be impractical for ANSPs themselves to demonstrate compliance to detailed technical requirements.
- 4.2 Manufacturers should still however refer to evidence of compliance with the regulatory requirements that their equipment that has been contracted to meet. This evidence will take the form of technical design documents and test evidence which can be requested from the manufacturer, and which will allow the ANSP to satisfy themselves if acceptable. The Summary of Compliance will be used to list this evidence, although by agreement between the ANSP and manufacturer it can be documented in other ways providing the same information is provided.

5. Community Specifications

- 5.1 Certain industry specifications were adopted by the EU and published in the Official Journal of the EU as Community Specifications (CS), and manufacturers could issue Declarations of Conformities against the CSs for which an ANSP could presume compliance with the specification. From 12th September 2023 no further CSs can be introduced, although industry specifications such as ETSI, Eurocae and Eurocontrol will be referenced in CAP 670 or elsewhere as means of compliance with relevant parts of the Implementing Rules. Manufacturers will be required to refer to evidence of compliance also using the Statement of Compliance.

6. Templates

- 6.1 Templates for the Record of Verification, Technical File and Summary of Compliance documents are published on the CAA Website.
- 6.2 The completed documents should be provided to the CAA with the safety assurance. Where certain test evidence may not be available until immediately prior to system transition, this should be agreed with the allocated CAA ATS Engineering Inspector.

7. Transition

- 7.1 For systems and changes to ATM functional system implemented before and up to 12th September 2023 the extant DoV, Technical File and DSUs are still valid and should be retained by ANSPs.
- 7.2 For systems introduced after 12th September, any new systems or constituents should have evidence of verification against the Interoperability Regulations and Essential Requirements described and recorded in the TF and RoV, as well as reference to evidence of manufacturer compliance. However, it is recognised that Technical Files may relate to new systems or constituents, as well as other unchanged elements, which will have extant DSUs. In this case, the DSUs for unchanged equipment can still be referenced and included in the Technical File as still providing evidence of compliance.
- 7.3 Where an EU Interoperability Community Specification was established, a Declaration of Compliance (DoC) for equipment supplied before 12th September 2023 can still be considered as valid and the DoC can be referenced in the Technical File.
- 7.4 For projects that have already started and IOP documents have already been submitted, these are considered sufficient provided they remain relevant to the system at transition.
- 7.5 It is recognised that for equipment changes immediately after 12th September 2023 manufacturers and ANSPs may not have had time to draw up the new Statement of Compliance or Technical File. Therefore, until 31st December 2023, provided a DSU drawn up for a new constituent contains reference to suitable evidence that is available to the ANSP if required, the DSU can be referenced in the Technical File. Similarly, an ANSP can submit a Technical File containing references to (EU) 552/2004 provided an explanatory note is included and compliance has been demonstrated against the Essential Requirements in the Basic Regulation. Documents already drawn up using the existing templates against (EU) 552/2004 may also be accepted for temporary ANO approval, provided they are replaced with

the documents drawn up using the new templates against CAP 670 before 31st December 2023.

Annex 1 Interoperability Regulations Requiring ANSP Demonstration of Compliance

UK Regulation (EU) No 1032/2006 Exchange of flight data

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter and scope	No
Article 2	Definitions	No
Article 3	Interoperability and performance requirements	Yes
Article 4	Quality of service requirements	Yes
Article 5	Associated procedures	Yes
Article 6	Safety requirements	Yes
Article 7	Conformity or suitability for use of constituents	No
Article 8	Verification of systems	Yes, except item 2 and 3
Article 9	Compliance	Repealed
Article 10	Transitional arrangements	Repealed
Article 11	Entry into force	Repealed
Annex I	Interoperability and performance requirements	Yes
Annex II	Requirements concerning quality of service	Yes
Annex III	Safety requirements	Yes
Annex IV Part A	REQUIREMENTS FOR THE ASSESSMENT OF THE CONFORMITY OR SUITABILITY FOR USE OF CONSTITUENTS REFERRED TO IN ARTICLE 7	No, but verification shall be conducted in accordance with all requirements except item 4
Annex IV Part B	REQUIREMENTS FOR THE VERIFICATION OF SYSTEMS REFERRED TO IN ARTICLE 8(1)	No, but verification shall be conducted in accordance with all requirements except items 4 and 7
Annex IV Part C	REQUIREMENTS FOR THE VERIFICATION OF SYSTEMS REFERRED TO IN ARTICLE 8(2)	No

UK Regulation (EU) No 1033/2006 Procedures for flight plans

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter and scope	No
Article 2	Definitions	No
Article 3	Interoperability and performance requirements	Yes
Article 4	Safety requirements	Yes
Article 5	Additional requirements	Yes
Article 6	Entry into force	Repealed
Annex I	ICAO Provisions	Yes

UK Regulation (EU) No 633/2007 Flight message transfer protocol

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter and scope	No
Article 2	Definitions	No
Article 3	Application of the flight message transfer protocol	Yes
Article 4	Conformity of constituents	No
Article 5	Verification of systems	Yes, except item 2 and 3
Article 6	Compliance	Repealed
Article 7	Transitional arrangements	Repealed
Article 8	Entry into force	Repealed
Annex I	Interoperability requirements	Yes
Annex II	Requirements for the assessment of the conformity of constituents carried out under Article 4	No, but verification shall be conducted in accordance with all requirements except item 4
Annex III	Conditions referred to in Article 5	No, but verification shall be conducted in accordance with all conditions
Annex IV Part A	REQUIREMENTS FOR THE VERIFICATION OF SYSTEMS CARRIED OUT UNDER ARTICLE 5(1)	No, but verification shall be conducted in accordance with all requirements except item 4 and 7
Annex IV Part B	REQUIREMENTS FOR THE VERIFICATION OF SYSTEMS REFERRED TO IN ARTICLE 5(2)	No

UK Regulation (EU) No 29/2009 Data link services

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter and scope	No
Article 2	Definitions	No
Article 3	Data link services	Yes, except items 2, 3, and 4
Article 4	Associated procedures	Yes
Article 5	Obligations of ATS providers for data link communications	Yes
Article 6	Obligations of operators for data link communications	No
Article 7	General obligations of the CAA for data link communications	Yes
Article 8	Data link communication for transport type State aircraft	No
Article 9	Obligations of air navigation services providers and other entities for data link communications	Yes
Article 10	Safety requirements	Yes
Article 11	Conformity or suitability for use of constituents	No
Article 12	Verification of systems	Yes, except item 2 and 3
Article 13	Additional requirements	Yes
Article 14	Exemptions	No
Article 15	Entry into force and application	Repealed
Annex I	Airspace referred to in Article 1	No
Annex II	Definition of data link services referred to in Articles 3, 4, 5 and 7 and Annex IV	Yes
Annex III	ICAO Provisions	Yes
Annex IV	Requirements referred to in Articles 5, 6, 7, 8 and 9	Yes
Annex V	Requirements for the assessment referred to in Article 11 of the conformity or suitability for use of constituents	Yes, except item 4.
Annex VI	Conditions referred to in Article 12	No, but verification shall be conducted in accordance with all conditions
Annex VII Part A	Requirements for the verification of systems referred to in Article 12(1)	No, but verification shall be conducted in accordance with all requirements except item 4 and 7
Annex VII Part B	Requirements for the verification of systems referred to in Article 12(2)	No

UK Regulation (EU) No 262/2009 Coordinated allocation of Mode S interrogator codes

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter and scope	No
Article 2	Definitions	No
Article 3	Interoperability and performance requirements	Yes
Article 4	Associated procedures for Mode S operators	Yes
Article 5	Associated procedures for the CAA	No
Article 6	Associated procedures for air traffic service providers	Yes
Article 7	Contingency requirements	Yes
Article 8	Civil-military coordination	No
Article 9	Safety requirements	Yes
Article 10	Conformity assessment	No
Article 11	Verification of systems	Yes, except item 2 and 3
Article 12	Additional requirements	Yes
Article 13	Entry into force	Repealed
Annex I	ICAO Provisions	Yes
Annex II	Requirements concerning the application for interrogator codes referred to in Articles 4(2), 5(1) and 5(2)	No
Annex III	II/SI code operation referred to in Article 3(2)	Yes
Annex IV Part A	Requirements for the assessment of the conformity or suitability for use of constituents of the systems referred to in Article 10	No. Manufacturer obligation
Annex IV Part B	Internal production control module	No. Manufacturer obligation for items 2, 3 and 4
Annex V	Conditions referred to in Article 11	No, but verification shall be conducted in accordance with all requirements
Annex VI Part A	Requirements for the verification of systems referred to in Article 11(1)	No, but verification shall be conducted in accordance with all requirements except items 4 and 7
Annex VI Part A	Requirements for the verification of systems referred to in Article 11(2)	No.

UK Regulation (EU) No 1206/2011 Aircraft identification for surveillance

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter	No
Article 2	Scope	No
Article 3	Definitions	No
Article 4	Performance requirements	Yes, except item 6
Article 5	Safety requirements	Yes
Article 6	Conformity or suitability for use of constituents	No
Article 7	Verification of systems	Yes, except item 2 and 3
Article 8	Additional requirements for air navigation service providers	Yes
Article 9	Additional requirements for operators	No
Article 10	Additional requirements for the CAA	Yes
Article 11	Exemptions	No
Article 12	Entry into force and application	Repealed
Annex I	Airspace referred to in Article 4(1) and (4)	No
Annex II	Performance requirements referred to in Article 4(3)	Yes
Annex III	Performance requirements referred to in Article 4(4)	Yes
Annex IV	Requirements referred to in Article 5	Yes
Annex V	Requirements for the assessment of the conformity or suitability for use of constituents referred to in Article 6	No. Manufacturer obligation for items 1, 2 and 3
Annex VI	Conditions referred to in Article 7(1) and (2)	No, but verification shall be conducted in accordance with all requirements
Annex VII Part A	Requirements for the verification of systems referred to in Article 7(1)	No, but verification shall be conducted in accordance with all requirements except items 4 and 7
Annex VII Part A	Requirements for the verification of systems referred to in Article 7(2)	No

UK Regulation (EU) No 1207/2011 Surveillance Performance and Interoperability

Regulation Article	Topic	Compliance to be demonstrated?
Article 1	Subject matter	No
Article 2	Scope	No
Article 3	Definitions	No
Article 4	Performance requirements	Yes
Article 5	Interoperability requirements	Yes, except items 4,5, 6, and 7
Article 6	Spectrum protection	Yes, except item 2
Article 7	Associated procedures	Yes, except items 2, 3 and 4
Article 8	State aircraft	Yes, except items 1, 2, 6 and 8
Article 9	Safety requirements	Yes
Article 10	Conformity or suitability for use of constituents	No
Article 11	Verification of systems	Yes, except item 2 and 3
Article 12	Additional requirements	Yes, except item 3
Article 13	Exemptions on the cooperative surveillance chain	No
Article 14	Exemptions on aircraft	No
Article 15	Entry into force and application	Repealed
Annex I	Performance requirements referred to in Article 4(3)	Yes
Annex II	Secondary surveillance radar transponder capabilities referred to in Article 4(3), Article 5(4)(a) and (5)(a), Article 7(2), Article 8(1) and (2)	No
Annex III	Surveillance data exchange requirements referred to in Article 5(1)	Yes
Annex IV	Requirements for the establishment of formal arrangements referred to in Article 5(2)	Yes
Annex V	Requirements for the assessment of the level of performance of surveillance chains referred to in Article 7(1)	Yes
Annex VI	Requirements referred to in Article 9	Yes
Annex VII	Requirements for the assessment of the conformity or suitability for use of constituents referred to in Article 10	No, manufacturer obligation for items 1, 2 and 3
Annex VIII	Conditions referred to in Article 11(1) and (2)	Yes
Annex IX Part A	Requirements for the verification of systems referred to in Article 11(1)	No, but verification shall be conducted in accordance with all requirements except items 4 and 7
Annex VII Part B	Requirements for the verification of systems referred to in Article 11(2)	No

UK Regulation (EU) No 1079/2012 Voice Channel Spacing

Regulation Article/Annex	Topic	Compliance to be demonstrated?
Article 1	Subject matter	No
Article 2	Scope	No
Article 3	Definitions	No
Article 4	Interoperability and performance requirements of radio equipment	Yes, except items 1, 3 and 5 Item 1 is a manufacturer requirement
Article 5	Obligations of operators	No
Article 6	Requirements on 8,33 kHz conversions	No
Article 7	Obligations of air navigation service providers	Yes
Article 8	Associated procedures	Yes, except items 4, 5, 6 and 7
Article 9	Arrangements for state aircraft	No
Article 10	Safety requirements	Yes
Article 11	Conformity or suitability for use of constituents	No
Article 12	Verification of systems	Yes, except item 2 and 3
Article 13	Additional requirements	Yes, except items 5
Article 14	Exemptions	No
Article 15	Repeal	No
Article 16	Entry into force	Repealed
Annex I	Member States referred to in Articles 5 and 6	No
Annex II	ICAO provisions referred to in Articles 4 and 8	Yes
Annex III	Requirements referred to in Article 10, to be taken into consideration during the safety assessment	Yes
Annex IV Part A	Requirements for the assessment of the conformity or suitability for use of constituents referred to in Article 11	No. Manufacturer obligation
Annex IV Part B	Internal production control module	No. Manufacturer obligation for items 2, 3 and 4
Annex IV Part C	Requirements for the verification of systems referred to in Article 12(1)	No, but verification shall be conducted in accordance with all requirements except items 4 and 7
Annex IV Part D	Requirements for the verification of systems referred to in Article 12(2)	No
Annex V	Conditions referred to in Article 12	No, but verification shall be conducted in accordance with all requirements