NOTICE OF PROPOSED AMENDMENT (NPA) 2012-13

DRAFT OPINION OF THE EUROPEAN AVIATION SAFETY AGENCY

for a Commission Regulation on Additional Airworthiness Requirements for Operations

and

for amending Commission Regulation (EU) No XXX/2012, laying down requirements and administrative procedures related to Air Operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council

and

DRAFT DECISION OF THE EXECUTIVE DIRECTOR OF THE EUROPEAN AVIATION SAFETY AGENCY

for Additional Airworthiness Specifications for Operations (CS-26)

'Additional Airworthiness Requirements for Operations'

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EXECUTIVE SUMMARY

In the Joint Aviation Authorities system, JAR-26 was introduced to make certain important airworthiness requirements applicable to aircraft in service.

The objective of this NPA is to transfer existing JAR-26 requirements applicable to aeroplanes used for commercial air transport into the EU legal framework in order to maintain the level of safety that was targeted by the JAR-26 specifications.

The proposals in this NPA are based on JAR-26 Amendment 3, adapted when necessary for consistency with other current applicable requirements and/or to address some identified implementation issues.

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A. Explanatory Note

I. General

1. The purpose of this Notice of Proposed Amendment (NPA) is to introduce rules imposing 'additional airworthiness specifications for a given type of operation' to newly produced or in-service aircraft. These specifications are based on JAR-26 requirements, amended when necessary for consistency with other requirements and/or clarity. Modifications to the structure and build-up of the rules were also required to adapt JAR-26 to the EASA regulation framework. On the one hand, providing the high-level requirements and applicability in implementing rules (Part-26) will ensure that the rules are binding. On the other hand, including the technical details on how to comply with these high level requirements in non-binding technical specifications and guidance material (CS-26 and GM) will ensure the necessary flexibility. To facilitate the transition to the new rule, however, the numbering of the original JAR-26 paragraphs was kept. The scope of this rulemaking activity is outlined in the Terms of Reference (ToR) 21.039(k) and is described in more detail below.

2. The European Aviation Safety Agency (hereinafter referred to as the 'Agency') is directly involved in the rule-shaping process. It assists the Commission in its executive tasks by preparing draft regulations, and amendments thereof, for the implementation of the Basic Regulation[1] which are adopted as 'Opinions' (Article 19(1)). It also adopts Certification Specifications, Acceptable Means of Compliance and Guidance Material to be used in the certification process (Article 19(2)).

3. When developing rules, the Agency is bound to follow a structured process as required by Article 52(1) of the Basic Regulation. Such a process has been adopted by the Agency's Management Board and is referred to as 'The Rulemaking Procedure'[2].

4. This rulemaking activity is included in the Agency's Rulemaking Programme for 2012. It implements the rulemaking task 21.039(k) 'Additional airworthiness requirements for operations'.

5. The text of this NPA has been developed by the Agency. It is submitted for consultation of all interested parties in accordance with Article 52 of the Basic Regulation and Articles 5(3) and 6 of the Rulemaking Procedure.

6. The proposed rule has taken into account the development of European Union and International law (ICAO), and the harmonisation with the rules of other authorities of the European Union main partners as set out in the objectives of Article 2 of the Basic Regulation. The proposed rule:

   a. takes into account developments of relevant European Union law;

   b. is equivalent to the ICAO Standards and Recommended Practices;

   c. is harmonised with the rules of FAA and TCCA.

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[1] Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.03.2008, p. 1). Regulation as last amended by Regulation 1108/2009 of the European Parliament and of the Council of 21 October 2009 (OJ L 309, 24.11.2009, p. 51).

[2] Management Board decision concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure), EASA MB 08-2007, 13.6.2007.

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II. Consultation

7. To achieve optimal consultation, the Agency is publishing the draft opinion and decision of the Executive Director on its website. Comments should be provided within 3 months in accordance with Article 6 of the Rulemaking Procedure.

8. Please submit your comments using the **automated Comment-Response Tool (CRT)** available at **http://hub.easa.europa.eu/crt/**[3].

9. The deadline for the submission of comments is **13 December 2012.**

III. Comment-Response Document (CRD)

10. All comments received in time will be responded to and incorporated in a comment response document (CRD). The CRD will be available on the Agency's website and in the Comment-Response Tool (CRT).

IV. Background

11. In the Joint Aviation Authorities (JAA) system, specific additional airworthiness specifications were prescribed under JAR-26 'additional airworthiness requirements for operations' (often called 'retroactive airworthiness requirements'). They contained airworthiness requirements for the aircraft design or its equipment. They were applicable to aeroplanes in service: either the aeroplanes already operated or the newly produced ones of an existing type. These requirements resulted from general safety improvements that were introduced in the airworthiness codes (equivalent to the current Agency CS), mostly after in-service experience (incidents or accidents). JAR-26 was necessary because new provisions in airworthiness codes are only applicable to new design and in some cases to significantly changed designs. Through JAR-26 some of these requirements were made also applicable to aircraft in service when it was found necessary to enhance the safety level for the in-service aircraft.

12. JAR-26 in its latest Amendment 3 dated 1 December 2005 contained requirements applicable to large aeroplanes used for commercial air transportation. They are mainly cabin safety requirements resulting from safety recommendations contained in accident investigation reports and research performed in the late eighties. Most of them were originally included in JAR-25. Their impact on safety was assessed by the JAA and it was deemed necessary to mandate them retro-actively through including them into JAR-26. The majority of them are also included in the FAA operational rule FAR Part 121. All of these specifications are considered important for maintaining the safety of the aeroplane or the survivability of its occupants.

13. As with any other JAR, JAR-26 became only legally binding to the industry when it was transposed into national law by the JAA member country. JAR-26 was also invoked through a provision in JAR-OPS 1 which required the operator to comply with it.

14. On 12 December 2006 JAR-OPS 1 was transposed into an Annex to Council Regulation (EEC) 3922/91 as 'EU-OPS'. Instead of referring to JAR-26, EU OPS 1.005(b) refers to 'applicable retroactive airworthiness requirements'. These applicable retroactive airworthiness requirements, defined by each Member State, are generally understood as those being based on JAR-26. According to the information provided by the National Aviation Authorities (NAAs), many of the European Union Member States (MS) have implemented the requirements as laid down in JAR-26.

15. The remit of the Agency was extended to rules for operations in the new Basic Regulation (EC) No 216/2008 dated 20 February 2008. The 'EU-OPS' will therefore be replaced by

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[3] In case the use of the Comment-Response Tool is prevented by technical problems please report them to the CRT webmaster (crt@easa.europa.eu).

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implementing rules under the Basic Regulation. With the extension of the remit of the Agency to the operational regulations the EU Member States will not be responsible anymore to mandate JAR-26 specifications. There is thus a need for Community provisions to enforce the former JAR-26 airworthiness specifications for operations in order to maintain the level of safety that is today achieved with the implementation of JAR-26. Furthermore, Article 5 of Regulation (EC) No 216/2008 mandates the development of implementing rules imposing additional airworthiness specifications for a given type of operation.

16. In the published ToR 21.039(k) it was assumed that the necessary regulatory framework for additional airworthiness specifications for a given type of operation would be set in Part-21 by the rulemaking task 21.039(a). This task was started in January 2007 and led to NPA 2009-01 in January 2009. In this NPA the method for imposing retroactive airworthiness requirements was based on the Safety Enhancement Directives (SEDs) concept. The objective of the SED concept was to allow the Agency to impose new airworthiness requirements on existing designs, i.e. newly produced or in-service aircraft. This SED concept also envisaged the creation of a new CS-26 which would include the technical standards that needed to be complied with. For the creation of the CS-26 a subtask to 21.039 was created: 21.039(k).

17. Finally, with the Opinion 07/2011, the Agency decided to abandon the SED concept. The Agency acknowledged that the concept of SEDs was complex and not easy to implement, while other regulatory tools were available to reach the same objective. Imposing new airworthiness requirements on existing designs is now proposed to be done through dedicated implementing rules supported by Certification Specifications. This means that a new Regulation with an annex called Part-26 will be created. The high level requirement, applicability and entry into force will be covered by Part-26. The technical details on how to comply with this high level requirement will be in a new Certification Specification CS-26.

18. This NPA is the first proposal for Part-26 and CS-26 requirements and also represents the first necessary step allowing for further future updates, as required to catch up with the evolutions of aviation safety requirements since the last amendment of JAR-26.

V. Content of the draft Opinion/Decision

19. The JAR-26 was divided in 2 sections, the first section containing requirements, and the second containing Acceptable Means of Compliance (AMC) and Interpretative/Explanatory Material (IEM).

    The sections were divided into five subparts:

    - Subpart A – General
    - Subpart B – Commercial Air Transportation (aeroplanes)
    - Subpart C – General Aviation (aeroplanes) - reserved
    - Subpart D – Commercial Air Transportation (helicopters) - reserved
    - Subpart E – General Aviation (helicopters) - reserved

    Subparts C, D and E were not developed. Only Subpart A (general information such as applicability or terminology), and Subpart B applicable to aeroplanes operated under commercial air transport (CAT) contained specifications.

20. Subpart B of JAR-26 specifically contained 13 requirements related to cabin, cargo compartment, landing gear aural warning and flight crew compartment. At the beginning of this rulemaking activity the Agency performed a survey, inquiring with the aviation authorities of all Member States the level of implementation of JAR-26 (see also in the Regulatory Impact Assessment). From this survey, it appeared that some problems existed

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with the implementation of some of the measures as well as some interpretation problems. This implementation experience has been taken into account in the development of this NPA and results in some changes as compared to the original JAR-26 text.

21. This Notice of Proposed Amendment (NPA) proposes the following:

1) A draft Agency's Opinion introducing:

- a new Commission Regulation in the frame of Regulation (EC) No 216/2008 acting as cover regulation on additional airworthiness requirements for operations;
- an Annex to this new Commission Regulation hereinafter referred to as 'Part-26', containing the high level safety requirements, applicability and their entry into force, based on JAR-26 Section 1 Subpart B;

2) A draft Agency's Decision introducing:

- new Certification Specifications with additional airworthiness specifications for operations hereinafter referred to as 'CS-26' containing the detailed technical specifications copied from JAR-26 Amendment 3, Section 1 Subpart B as standard means to comply with the high level requirements of Part-26;
- a set of Guidance Material for showing compliance to CS-26, as copied from JAR-26 Amendment 3 Section 2 (AMC/IEM).

22. Each JAR-26 paragraph is transferred into new paragraphs bearing the same number, respectively in Part-26, CS-26 and GMs for consistency and ease of the transition from the old to the new system of rules. A cross-reference table including also the relevant JAR/CS-25 and OPS provisions is added in a new GM1 26.1.

23. As indicated above, when transposing JAR-26 into the EU regulatory framework, the Agency decided to split each provision in elements to be included in Part-26 and other elements to go into CS-26. This was done for the following reasons. In the EU system only EU regulations can impose generally binding rules on (natural or legal) persons so in order to make the former JAR-26 content binding, it has to be included in an EU regulation. At the same time also it is acknowledged that airworthiness standards need to be implemented in a flexible manner. For new designs the necessary flexibility is included in Part-21 which allows deviations from the standards through special conditions or equivalent level of safety findings. The same approach is not possible for the retro-active airworthiness requirements because there is no possibility to establish a certification basis upon an application for an approval. Therefore, the flexibility has to be found in limiting the binding law to high level objectives, applicability and implementation dates only and leaving the details in 'soft law' such as CSs and GM. This approach has the advantage to allow enough flexibility for the addressee of the requirement to establish the best way to comply with a certain safety requirement. This also allows for a shorter process when an update of the technical requirements is needed, as necessary to follow-up the pace of evolution of other CS. Finally, the existence of a dedicated CS-26, allows for its inclusion, at the request of an applicant, in the certification basis of new or changed products, which will allow a clear statement of compliance with these provisions that can be used by the operators of these types or changed types when demonstrating compliance with Part-26.

24. The initial versions of Part-26 and CS-26, as presented in this NPA, will include only the existing JAR-26 provisions, and apply to operators of large aeroplanes operated in commercial air transportation, consistent with the applicability of JAR-26. Further provisions will follow under separate rulemaking tasks which depending on the technical content, may also be applicable to other categories of aircraft and/or operations and also to design approval holders or production organisations time a new airworthiness requirement needs to be imposed, an amendment to Part-26 and CS-26 will be proposed through an NPA.

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25. The new Part-26 will be applicable directly to the operators and Member States can therefore use existing national law to enforce it. However, the Agency considers that there is a need to have a wider range of enforcement tools available to the Member States. Therefore this NPA also proposes to include a cross-reference to the new rule into the rules for operators for obtaining an Air Operator Certificate.

VI. Differences introduced in Part-26 and CS-26

26. The baseline principle for drafting Part-26 and CS-26 was to keep the text of JAR-26 as far as possible without any changes. However, in transposing JAR-26 into the new Part-26 and CS-26 it was unavoidable to introduce several changes. Most of the differences between JAR and the proposed rules are the result of general principles but in addition there are also some specific differences resulting from implementation issues or for establishing consistency with other EASA rules. All these differences are discussed below.

27. Differences resulting from different regulatory frameworks.

Some provisions in JAR-26 were specific for the JAA regulatory framework and are either completely reworded and placed elsewhere or are not appropriate in the EU regulatory framework.

JAR 26.1 'Applicability' was specific to the JAA situation. It is replaced by Article 1 'Scope' of the cover regulation, Part 26.20 and the applicability provisions of each of the individual points in Part-26 Subpart B.

JAR 26.2 'Terminology'. This is replaced by Article 2 'Definitions' of the cover regulation. The definition of 'airworthiness exemption' is deleted since it is no longer used in the text, because exemptions are addressed in general by the Basic Regulation.

The definition of 'manufactured' is replaced by a definition of 'first certificate of airworthiness' because the Agency considers this term more precise and practical.

The definition of 'Maximum Certificated Passenger Seating Capacity (MCPSC)' is deleted because it is no longer used in the document.

The definition of 'Maximum Approved Passenger Seating Capacity (MAPSC)' is replaced by the definition of 'Maximum Operational Passenger Seating Configuration (MOPSC)' for consistency with the OPS regulations.

The definition of 'Type Certificated (TC)' is deleted because the Agency considers this term self-explanatory.

Definitions of emergency exits, cargo compartments and large aeroplanes were added.

JAR 26.3 'Equivalent Safety Findings (ESF)'. This point is deleted but the concept is kept and included in the new point 26.35.

JAR 26.5 'Airworthiness Exemptions'. This provision is deleted because the grandfathering of previously issued exemptions by Member States is covered by the grandfathering provisions of Regulation (EU) No 748/2012. The provision for future exemptions is deleted because exemptions are addressed in general by the Basic Regulation.

28. Split in Part-26 and CS-26.

As explained above, the Agency has decided to divide the JAR-26 text into an implementing rule Part-26 and Certification Specifications CS-26. This does not lead to any differences in substance. In general, the applicability of the rule, the high level objective of what needs to be complied with and the compliance time are included in Part-26. The detailed standard on how to comply with the high level objective remains in CS-26.

29. Use of mandatory clauses in Certification Specifications.

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Because Certification Specifications (CS) are non-binding standards they cannot contain mandatory clauses. The provisions of JAR-26 are therefore slightly reworded to remove words like 'shall' and 'must' and CS-26 is formulated as a standard, rather than a requirement. Nevertheless, only full compliance with the applicable CS provides for the presumption of compliance with the relevant Part-26 requirement.

30. Dates.

In JAR-26 several dates were included with different purposes. In general, all the dates defining the applicability of the requirement, or the way to comply were kept. The compliance dates have all been changed to one year after the effectivity of the rule to prevent any compliance problems except for Part 26.100 where no physical change to the aeroplane is required.

31. Specific changes.

In addition to the above general changes, also some specific changes have been introduced to address current implementation issues or because of consistency or compatibility with other EU regulations. They are listed and explained in the following table:

JAR-26 paragraph	**Specific changes introduced in Part/CS-26**
JAR 26.50 Seats, berths, safety belts and harnesses	none
JAR 26.100 Location of emergency exits	none
JAR 26.105 Emergency exit access	none
JAR 26.110 Emergency exit markings	In CS 26.110(d) a new provision has been added to allow symbolic exit signs in addition to the classical signs with the words 'exit' or 'emergency exit' The content of subparagraph (g) has been moved to the end of subparagraph (d)
JAR 26.120 Interior emergency lighting and emergency light operation	In CS 26.120(b) the reference to 26.125 is replaced by a reference to Part CAT.IDE.A.275 (b)(4) and (5) (see below for JAR 26.125). In CS 26.120(c) and (d) the term 'manufactured' is replaced by the term 'which had its initial Certificate of Airworthiness issued' as the Agency considers this a more precise and practical date. In CS 26.120(c)(1)(i) the text related to deviations providing equivalent safety has been deleted. This is covered by the general provision in Part 26.35 and the exemption provisions of Regulation 216/2008. A new CS 26.120(e) has been added to allow symbolic exit signs in addition to the classical signs with the words 'exit' or 'emergency exit'.

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JAR-26 paragraph	Specific changes introduced in Part/CS-26
JAR 26.125 Exterior emergency lighting	This paragraph is deleted in its entirety because it is covered by Part-CAT.IDE.A.275 (b)(4) and (5).
JAR 26.130 Emergency egress assist means and escape routes	This paragraph is deleted in its entirety because it is covered by Part-CAT.IDE.A.265.
JAR 26.150 Compartment interiors	In CS 26.150(c)(1) and (2) the term 'manufactured' is replaced by the term 'which had its initial Certificate of Airworthiness issued' as the Agency considers this a more precise and practical date. In CS 26.150(f) a sentence has been added to allow the establishment of maintenance tasks instead of certain certification tests.
JAR 26.155 Flammability of cargo compartment liners	none
JAR 26.160 Lavatory fire protection	none
JAR 26.200 Landing gear aural warning	none
JAR 26.250 Flight crew compartment door operating systems – single incapacitation	There is no CS 26.250 as compliance with Part 26.250 is self-explanatory.
JAR 26.260 Security considerations	This paragraph is deleted in its entirety because it is covered by Part-ORO.SEC.100.A in combination with CS 25.795

32. Compatibility with OPS rules.

As can be seen from the above table an important consideration for introducing changes compared to JAR-26 was the compatibility and consistency with the (draft) EU regulations on air operations ('OPS'). One of the objectives of the consistency check with the OPS requirements was to avoid duplication of requirements. It appeared that several JAR-26 requirements were already covered by the draft EASA OPS rules which are currently in their final stage of adoption by the European Commission. When there was a clear duplication, the Agency decided to remove the requirement from the Part-26 proposal. This was the case for 26.125, 26.130 and 26.260. In other cases there was similarity in the requirements but not an exact coverage of the Part-26 requirement by the OPS rule. In those cases, the Agency decided to keep the Part-26 proposal. The relevant provisions are listed in the below table:

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26.50(a)	Part-CAT.IDE.A.205
26.50(b)	Part-CAT.IDE.A.205
26.105(d)	Part-CAT.IDE.A.215
26.110(a)	Part-CAT.IDE.A.275
26.120(a)	Part-CAT.IDE.A.275
26.150(b)	Part-CAT.IDE.A.210

The Agency decided to keep the Part-26 requirements to avoid gaps in the requirements. However, in order to avoid any implementation problems, the Agency will initiate further rulemaking activities to improve the compatibility between the different requirements.

VII. Future Part/CS-26 rulemaking

33. This NPA resulting from rulemaking task 21.039(k) covers only the transfer of existing JAR-26 requirements. In addition, the Agency is also developing new additional airworthiness specifications for operations, which are identified in the Agency rulemaking programme and planning, and which should complement at a later stage the initial Part-26 and CS-26 as proposed by this NPA.

34. The following tasks are currently in the planning:

- RMT.0068 (26.001) Type III Emergency exit access and ease of operation;
- RMT.0069 (26.002) Seat crashworthiness improvement on Large Aeroplanes - Dynamic testing 16g;
- RMT.0070 (26.003) Fire hazard in Class D Cargo Compartments;
- RMT.0071 (26.004) Thermal/Acoustic Insulation Material;
- RMT.0072 (26.005) Class B/F Cargo Compartment;
- RMT.0075 (26.008) Fuel tank flammability reduction of already certificated large aeroplanes;
- RMT.0077 (26.010) Activation of ice protection;
- RMT.0225 (MDM.028 a) Development of an ageing aircraft structure plan;
- RMT.0308 (OPS.023 a) Update of existing installations and equipment II;
- RMT.0400 (OPS.090 a) Updating of existing installations and equipment I;
- RMT.0560 Halon - Update of Part-26 to comply with ICAO standards.

35. One of the principles that is used for selecting the provisions that should be included in Part/CS-26 is that they are always based on a provision that already exists in an airworthiness CS, applicable to new designs. In most cases this existing provision can be applied unchanged to existing designs, however, in some cases it will need to be adjusted.

36. As explained before, the future Part-26 provisions can be applicable to design approval holders, production organisations, operators or all of them. The applicability of each provision will be decided on a case-by-case basis depending on safety and practicality considerations and will be subject to public consultation under the NPA process.

VIII. Regulatory Impact Assessment

1. Process and consultation

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Most of the EU Member States have implemented JAR-26. The impact on operators and manufacturers of transferring JAR-26 into the EU regulatory framework is thus expected to be low. In addition, all JAR-26 paragraphs were already subject to impact assessment as per JAA procedures. Consequently, this Regulatory Impact Assessment (RIA) has been simplified.

2. Issue analysis and risk assessment

2.1. Issue which the NPA is intended to address and sectors concerned

With the extension of the remit of the Agency to the operational regulations the EU Member States will not be responsible anymore to mandate JAR-26 specifications. There is thus a need for Community provisions to enforce the former JAR-26 airworthiness specifications for operations in order to maintain the level of safety that is today achieved with the implementation of JAR-26.

2.2. What are the risks

The level of safety could be degraded if existing JAR-26 provisions are not transferred into the Community framework. Even if the existing fleet should normally be in compliance already, the lack of a legal enforcement tool may lead to introduction of modifications that are not in compliance or used aircraft that are not compliant being introduced in the fleet.

3. Objectives

The objective is to maintain or improve the level of safety that is today achieved by the implementation of JAR-26 in most of the EU Member States. This consists in the transfer of JAR-26 specifications applicable to large aeroplanes already type certificated and operated for commercial air transport by EU operators.

4. Options identified

Developing implementing rules imposing additional airworthiness specifications for a given type of operation is required in Article 5 of Regulation (EC) No 216/2008. The decision to transfer JAR-26 into the EU framework therefore follows from that legal requirement and is not open for discussion in this RIA. The only open question is on how to mandate these additional airworthiness specifications for operations, and how to integrate them in the existing regulatory framework. The various options were discussed and explored during rulemaking task 21.039 on Operational suitability and Safety Directives and are explained in NPA 2009-01, CRD 2009-01 and Opinion 07/2011. The only remaining options to be discussed for this NPA are the option of doing nothing to be compared with the option of regulating as proposed in this NPA:

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Option no.	Description	Comments
0	do nothing	Does not fulfil the need and requirement of the Basic Regulation to mandate retroactive safety requirements
1	Introduction of new implementing rules to the Basic Regulation (EC) 216/2008 referred to as Part-26 with associated CS-26 and AMC/GM.	Fulfils the need of mandating JAR-26 requirements, while allowing flexibility in the compliance showing, as allowed by CS and AMC/GM

5. Analysis of the impacts

As was the case for JAR-26, the additional airworthiness specifications for operations in the proposed Part-26 will be applicable to the operators conducting commercial air transport with large aeroplanes. So these operators will be responsible for showing compliance with the Part-26 requirements. When the basic type design of the affected aircraft does not comply, compliance can be achieved by introducing modifications designed by the TC holder ('change to TC') or by third parties under a Supplemental Type Certificate (STC).

5.1. Safety impacts

The level of safety as achieved through the implementation of JAR-26 should be maintained. In the few cases where JAR-26 was not implemented, the level of safety can be increased.

5.2. Social impacts

No social impact expected

5.3. Economic impacts

At the time of the launch of the Rulemaking Task (in 2009), the Agency performed a survey regarding the level of compliance with JAR-26 amongst CAT operators in the EU.

The results of the 11 replying countries are summarised in the following tables:

Compliant	Nr of Aircraft
Austria	368
Czech Republic	90
Finland	124
France	629
Germany	1 164
Italy	491
Latvia	62
Netherlands	294
Poland	96
United Kingdom	1 394

Non-compliant	Nr of Aircraft
Sweden	176

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If we project these shares to the whole fleet in 2009:

Compliant	96,4%	7.582
Non-compliant	3,6%	283
Total	100,0%	7.865

Extrapolated to today's fleet of 7 909 aircraft, this would mean that an estimated 285 aircraft would be non-compliant. Due to the general implementation of JAR-26 in the EU, the economic impact is therefore expected to be low.

5.4. Environmental impacts

No environmental impact expected

5.5. Proportionality issues

Only operators of large aeroplanes used for commercial air transport are impacted. The expected impact is proportionate with the safety risk for the number of passengers transported by those operators.

5.6. Impact on regulatory coordination and harmonisation

Most of the JAR-26 requirements are also covered by FAR 121, applicable to commercial operations in the US. Therefore, there is a high level of harmonisation with the US.

6. Conclusion and preferred option

6.1. Comparison of the positive and negative impacts for each option evaluated:

The transfer of JAR-26 into the EU framework will maintain or improve the safety levels with very low economic impacts. Not doing so will create a regulatory gap which could lead to a decrease in safety.

6.2 Summary describing who would be affected by these impacts and analysing issues of equity and fairness:

Because all of the JAR-26 requirements are well known for a long period of time there are design solutions for all of them. So the design approval holders are not affected by the transfer of these provisions. The existing fleet of EU operators should normally already comply with all the provisions. When a used aircraft is imported from outside EU, it may need to be modified to comply with the Part-26 requirements. This is, however, not new. Therefore, the economic impact is judged to be negligible.

6.3 Final assessment and recommendation of a preferred option:

The option to transfer JAR-26 into a new Part-26 and associated CS-26 and guidance material was discussed already as part of rulemaking task 21.039(a). The Agency considers this option the most appropriate way to comply with the legal requirement of the Basic Regulation, while also respecting the practical implementation issues for the stakeholders.

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B. Draft Opinion and Decision

I. Draft Opinion Part-26

DRAFT COMMISSION REGULATION (EU) No …/201X

of […]

on additional airworthiness requirements for operations

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC ([4]) as amended by Regulation (EC) No 1108/2009 of the European Parliament and of the Council of 21 October 2009 in the field of aerodromes, air traffic management and air navigation services and repealing Directive 2006/23/EC ([5]), and in particular Articles 5 thereof,

Whereas:

(1) Pursuant to Regulation (EC) No 216/2008 (hereinafter referred to as 'Basic Regulation'), the Commission, assisted by the European Aviation Safety Agency (hereinafter referred to as 'the Agency'), is required to adopt the necessary implementing rules for common airworthiness requirements throughout the Union.

(2) Such requirements, covering the entire life cycle of aeronautical products, may include additional requirements for a given type of operations to be implemented after the initial issuance of an airworthiness approval in the interests of safety.

(3) Already in 1998 the Joint Aviation Authorities (JAA) had issued JAR-26, 'Additional (joint) Airworthiness Requirements for Operations'.

(4) The technical requirements of JAR-26 need to be transferred to the EU regulatory framework.

(5) In order to ensure consistency and clarify obligations a reference to this Regulation is needed in the upcoming Commission Regulation (EU) No XXX/2012, laying down requirements and administrative procedures related to Air Operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council.

(6) The Agency prepared draft implementing rules and submitted them as an opinion to the Commission in accordance with Article 19(1) of Regulation (EC) No 216/2008.

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4 OJ L 79, 19.3.2008, p. 1.

5 OJ L 309, 24.11.2009, p. 51.

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(7) The measures provided for in this Regulation are in accordance with the Opinion of the European Aviation Safety Agency Committee established by Article 65 of Regulation (EC) No 216/2008,

HAS ADOPTED THIS REGULATION:

Article 1

Scope

This Regulation lays down common additional airworthiness requirements to support the continued airworthiness and safety improvements of:

1. Aircraft registered in a Member State;
2. Aircraft registered in a third country and used by an operator established or residing in the European Union.

Article 2

Definitions

For the purposes of this Regulation, the following definitions shall apply:

1. Emergency Exits:
   (a) 'Type A emergency exit' means a floor level exit with a rectangular opening of not less than 1.07 m wide by 1.83 m high with corner radii not greater than one-sixth of the width of the exit.
   (b) 'Type II emergency exit' means a rectangular opening of not less than 0.51 m wide by 1.12 m high, with corner radii not greater than one-third the width of the exit. Type II exits must be floor level exits unless located over the wing, in which case they may not have a step-up inside the aeroplane of more than 0.25 m nor a step-down outside the aeroplane of more than 0.43 m.
2. Cargo Compartments:
   (a) 'Class A cargo compartment' means a cargo or baggage compartment in which:
      (i) The presence of a fire would be easily discovered by a crew member while at his station; and
      (ii) Each part of the compartment is easily accessible in flight.
   (b) 'Class B cargo compartment' means a cargo or baggage compartment in which:
      (i) There is sufficient access in flight to enable a crew member to effectively reach any part of the compartment with the contents of a hand fire extinguisher;
      (ii) When the access provisions are being used, no hazardous quantity of smoke, flames or extinguishing agent will enter any compartment occupied by the crew or passengers; and

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(iii) There is a separate approved smoke detector or fire detector system to give warning to the pilot or flight engineer station.

(c) 'Class C cargo compartment' means a cargo or baggage compartment not meeting the specifications for either a Class A or B compartment but in which:

(i) There is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station;

(ii) There is an approved built-in fire-extinguishing or suppression system controllable from the cockpit;

(iii) There are means to exclude hazardous quantities of smoke, flames, or extinguishing agent, from any compartment occupied by the crew or passengers; and

(iv) There are means to control ventilation and draughts within the compartment so that the extinguishing agent used can control any fire that may start within the compartment.

(d) 'Class D cargo compartment' means a cargo or baggage compartment in which:

(i) A fire occurring in it will be completely confined without endangering the safety of the aeroplane or the occupants;

(ii) There are means to exclude hazardous quantities of smoke, flames, or other noxious gases, from any compartment occupied by the crew or passengers;

(iii) Ventilation and draughts are controlled within each compartment so that any fire likely to occur in the compartment will not progress beyond safe limits;

(iv) Consideration is given to the effect of heat within the compartment on adjacent critical parts of the aeroplane; and

(v) The compartment volume does not exceed 28.32 m^3.

4. 'Maximum Operational Passenger Seating Configuration (MOPSC)' means the maximum passenger seating capacity of an individual aircraft, excluding crew seats, established for operational purposes and specified in the operations manual.

5. 'First Certificate of Airworthiness' means the first certificate of airworthiness issued by any ICAO Member State for the individual aircraft concerned.

6. 'Large aeroplane' means an aeroplane that has the Certification Specifications for large aeroplanes 'CS-25' or equivalent in its certification basis.

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Article 3

Additional airworthiness requirements for operations

Aircraft registered in a Member State or registered in a third country and used by an operator established or residing in the Union shall comply with the provisions of Annex I to this Regulation (Part-26).

Article 4

Amendment to Commission Regulation (EU) No XXX/2012

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The Annex III (Part-ORO) to Commission Regulation (EU) No XXX/2012, laying down requirements and administrative procedures related to Air Operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council, is amended in accordance with Annex II to this Regulation.

Article 5

Transition provision

Aircraft for which compliance with JAR-26 has been demonstrated shall be deemed to comply with this Regulation.

Article 6

Entry into force

This Regulation shall enter into force on the 20th day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, …

For the Commission

The President

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ANNEX I

PART-26

Additional airworthiness requirements for operations

Subpart A — General Provisions

26.10 Competent authority

For the purpose of this Part, the competent authority to which compliance with the requirements needs to be demonstrated by operators shall be the authority designated by the Member State in which the operator has its principal place of business.

26.20 Temporary inoperative equipment

A flight shall not be commenced when any of the aircraft's instruments, items of equipment or functions required by this Part-26 are inoperative or missing, unless waived by the operator's Minimum Equipment List as defined in Part-ORO.MLR.105 and approved by the competent authority.

26.30 Demonstration of compliance

(a) The Agency shall issue, in accordance with Article 19 of Regulation (EC) No 216/2008, certification specifications as standard means to show compliance of products with this Part. The certification specifications shall be sufficiently detailed and specific to indicate to operators the conditions under which compliance with the requirements of this Part may be demonstrated.

(b) Operators may demonstrate compliance with the requirements of this Part by complying with:

(i) the detailed specifications issued by the Agency under (a) or the equivalent specifications issued by the Agency under 21.A.16A; or

(ii) technical standards offering an equivalent level of safety as those included in those specifications.

Subpart B — Large Aeroplanes

26.50 Seats, berths, safety belts and harnesses

Operators of large aeroplanes used in commercial air transport, type certificated on or after 1 January 1958, shall ensure, not later than [one year after the entry into force of this Regulation], that each flight or cabin crew member seat and its restraint system are configured in order to provide an optimum level of protection in an emergency landing whilst allowing the occupant's necessary functions and facilitating rapid egress.

26.100 Location of emergency exits

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Except for aeroplanes having an emergency exit configuration installed and approved prior to 1 April 1999, operators of large aeroplanes used in commercial air transport having a Maximum Operational Passenger Seating Configuration of more than 19 with one or more emergency exit(s) deactivated shall ensure that the distance(s) between the remaining exits remain(s) compatible with effective evacuation.

26.105 Emergency exit access

Operators of large aeroplanes used in commercial air transport shall provide, not later than [one year after the entry into force of this Regulation], means to facilitate the rapid and easy movement of each passenger from their seat to any of the emergency exits.

26.110 Emergency exit markings

Operators of large aeroplanes used in commercial air transport shall comply with the following not later than [one year after the entry into force of this Regulation]:

(a) Means shall be provided to facilitate the location, access and operation of emergency exits by cabin occupants under foreseeable conditions in the cabin in case of an emergency evacuation.

(b) Means shall be provided to facilitate the location and operation of emergency exits by personnel on the outside of the aeroplane in case of an emergency evacuation.

26.120 Interior emergency lighting and emergency light operation

Operators of large aeroplanes used in commercial air transport shall provide, not later than [one year after the entry into force of this Regulation], means to ensure that illuminated exit signage, general cabin and exit area illumination, and low level exit path illumination is available to facilitate the location of exits and movement of passengers to the exits in case of emergency evacuation.

26.150 Compartment interiors

Operators of large aeroplanes used in commercial air transport shall comply with the following not later than [one year after the entry into force of this Regulation]:

(a) All materials and equipment used in compartments occupied by the crew or passengers shall exhibit flammability characteristics compatible with minimising the effects of in-flight fires and the maintenance of survivable conditions in the cabin for a time commensurate with that needed to evacuate the aircraft.

(b) If smoking is prohibited, this shall be indicated with placards. If smoking is allowed, ashtrays in appropriate numbers, locations and with suitable markings shall be provided. Illuminated signs, operable by the flight crew, shall be provided to indicate when smoking is prohibited.

(c) Disposal receptacles shall be such that containment of an internal fire is ensured. Such receptacles shall be marked to prohibit the disposal of smoking materials.

26.155 Flammability of cargo compartment liners

Operators of large aeroplanes used in commercial air transport, type certificated after 1 January 1958, shall ensure, not later than [one year after entry into force of this Regulation], that the liners of Class C or D cargo compartments are constructed of materials that adequately prevent the effects of a fire in the compartment from endangering the aircraft or its occupants.

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26.160 Lavatory fire protection

Operators of large aeroplanes used in commercial air transport with a Maximum Operational Passenger Seating Configuration of more than 19 shall comply with the following not later than [one year after the entry into force of this Regulation]:

Lavatories shall be equipped with

a) Smoke detection means;

b) Means to automatically extinguish a fire occurring in each disposal receptacle.

26.200 Landing gear aural warning

Operators of large aeroplane used in commercial air transport shall ensure, not later than [one year after the entry into force of this Regulation], that an appropriate landing gear aural warning device is installed in order to significantly reduce the likelihood of landings with landing gear inadvertently retracted.

26.250 Flight crew compartment door operating systems – single incapacitation

Operators of large aeroplanes used in commercial air transport shall ensure, not later than [one year after the entry into force of this Regulation], that flight crew compartment door operating systems shall be provided with alternate opening means in order to facilitate access by cabin crew members into the flight crew compartment in the case of a single flight crew member incapacitation.

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ANNEX II

Amendment to PART-ORO.AOC

In Subpart A - general provisions, paragraph ORO.AOC.100 is amended as follows:

"ORO.AOC.100 Application for an air operator certificate

…….

(c) Applicants shall demonstrate to the competent authority that:

(1) they comply with all the applicable requirements of: ~~Annex IV to Regulation (EC) No 216/2008, this Annex and Annex IV (Part-CAT) and Annex V (Part-SPA) to this Regulation, as applicable~~;

(i) Annex IV to Regulation (EC) No 216/2008;

(ii) this Annex (Part-ORO);

(iii) Annex IV (Part-CAT) and Annex V (Part-SPA) to this Regulation, as applicable; and

(iv) Regulation xxx/xxxx (Part-26)

(2) all aircraft operated have a certificate of airworthiness (CofA) in accordance with Regulation (EC) No ~~1702/2003~~ 748/2012; and

(3) its organisation and management are suitable and properly matched to the scale and scope of the operation."

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II Draft Decision CS-26

Draft CS-26

Additional airworthiness specifications for operations

Book 1

SUBPART A – General Provisions

CS 26.1 Purpose and scope

This CS is the standard means to show compliance of products with the requirements of Part-26. (See GM1 26.1)

SUBPART B – Large Aeroplanes

CS 26.5 Seats, berths, safety belts, and harnesses

Compliance with Part 26.50 is demonstrated by complying with CS 25.785(h), (j) & (k), or equivalent or with the following:

(a) Each seat at a flight deck station is equipped with a combined safety belt and shoulder harness with a single-point release that permits the flight deck occupant, when seated with safety belt and shoulder harness fastened, to perform all of the occupant's necessary flight deck functions. There must be a means to secure each combined safety belt and shoulder harness, when not in use, to prevent interference with the operation of the aeroplane and with rapid egress in an emergency. Shoulder harness and combined safety belt and shoulder harness that were approved and installed prior to 6 March 1980 may continue to be used. Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the aeroplane.

(b) Each cabin crew member seat located in passenger compartments, excluding passenger seats occupied by cabin crew members not required by Part-ORO.CC.100, is equipped with a restraint system consisting of a combined safety belt and shoulder harness unit with a single point release. Each combined safety belt and shoulder harness is equipped with a means to secure it, when not in use, to prevent interference with rapid egress in an emergency. In addition,

(1) to the extent possible, without compromising their proximity to required floor level emergency exits, cabin crew seats are located to provide a direct view of the cabin area for which the cabin crew member is individually responsible, except that for aeroplanes with a certification basis prior to JAR 25.785 at Change 8 (or FAR Part 25, §25.785, at Amendment 25-51 respectively), cabin crew member seats need not be re-located to meet that condition if an indirect view into the passenger cabin is given by a mirror.

(2) cabin crew member seats are:

(i) either forward or rearward facing, with an energy absorbing rest that is designed to support the arms, shoulders, head, and spine; and

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(ii) positioned so that when not in use they do not interfere with the use of passageways and exits.

Combined safety belt and shoulder harness that were approved and installed prior to 6 March 1980 may continue to be used. Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the aeroplane.

(c) Each seat for a required cabin crew member is located to minimise the probability of its occupant suffering injury by being struck by items dislodged in a galley, or from a stowage compartment or serving cart. All items expected in these locations in service are considered. (See GM1 26.50(c))

(d) Each occupant of a seat that makes more than an 18-degree angle with the vertical plane containing the aeroplane centreline is protected from head injury by a safety belt and an energy absorbing rest that will support the arms, shoulders, head and spine, or by a safety belt and shoulder harness that prevents the head from contacting any injurious object. Each occupant of any other seat is protected from head injury by a safety belt and, as appropriate to the type, location, and angle of facing of each seat, by one or more of the following:

(1) a shoulder harness that will prevent the head from contacting any injurious object;

(2) the elimination of any injurious object within striking radius of the head;

(3) an energy absorbing rest that will support the arms, shoulders, head, and spine.

CS 26.100 Location of emergency exits

Compliance with Part 26.100 is demonstrated by complying with the following:

If one or more emergency exit is deactivated, the distance(s) between the remaining exits is at least 18.3 m (60 feet) from any adjacent passenger emergency exit on the same side of the same deck of the fuselage, as measured parallel to the aeroplane's longitudinal axis between the nearest exit edges.

CS 26.105 Emergency exit access

Compliance with Part 26.105 is demonstrated by complying with CS 25.813(d) to (f) or equivalent, or with the following:

(a) Reserved

(b) If it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway is unobstructed. However, curtains may be used if they allow free entry through the passageway.

(c) No door is installed in any partition between passenger compartments.

(d) If it is necessary to pass through a doorway separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door has a means to latch it in the open position. The latching means withstands the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, prescribed in CS 25.561(b), or equivalent, at the amendment level specified in the relevant Type Certificate Data Sheet, or equivalent document.

CS 26.110 Emergency exit markings

Compliance with Part 26.110 is demonstrated by complying with CS 25.811(a) to (d), and (f)&(g), or equivalent, and CS 25.811(e) or equivalent, or with the following:

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(a) Each passenger emergency exit, its means of access, and its means of opening is conspicuously marked.

(b) The identity and location of each passenger emergency exit is recognisable from a distance equal to the width of the cabin.

(c) Means are provided to assist the occupants in locating the exits in conditions of dense smoke.

(d) The location of each passenger emergency exit is indicated by a sign visible to occupants approaching along the main passenger aisle (or aisles). There is:

(1) a passenger emergency exit locator sign above the aisle (or aisles) near each passenger emergency exit, or at another overhead location if it is more practical because of low headroom, except that one sign may serve more than one exit if each exit can be seen readily from the sign;

(2) a passenger emergency exit marking sign next to each passenger emergency exit, except that one sign may serve two such exits if they can both be seen readily from the sign; and

(3) a sign on each bulkhead or divider that prevents fore and aft vision along the passenger cabin to indicate emergency exits beyond and obscured by the bulkhead or divider, except that if this is not possible, the sign may be placed at another appropriate location.

Each sign listed in this sub-paragraph may use the word 'exit' in its legend in place of the term 'emergency exit' or a universal symbolic exit sign. The design of the exit signs is chosen to provide a consistent set throughout the cabin.

(e) The location of the operating handle and instructions for opening exits from the inside of the aeroplane are clearly shown in the following manner:

(1) each passenger emergency exit has, on or near the exit, a marking that is readable from a distance of 76 cm (30 inches);

(2) each passenger emergency exit operating handle and the cover removal instructions, if the handle is covered, are:

(i) self-illuminated with an initial brightness of at least 160 micro-lamberts (with the illumination level not decreasing in service to below 100 micro-lamberts); or

(ii) conspicuously located and well illuminated by the emergency lighting even in conditions of occupant crowding at the exit.

(3) Reserved

(4) All Type II and larger passenger emergency exits with a locking mechanism released by motion of a handle, are marked by a red arrow with a shaft at least 19 mm (0·75 inch) wide, adjacent to the handle, that indicates the full extent and direction of the unlocking motion required. The word OPEN is horizontally situated adjacent to the arrow head and is in red capital letters at least 25 mm (1 inch) high. The arrow and word OPEN are located on a background which provides adequate contrast. (See GM1 26.110(e)(4))

(f) Each emergency exit that is openable from the outside, and its means of opening is marked on the outside of the aeroplane. In addition, the following apply:

(1) The outside marking for each passenger emergency exit in the side of the fuselage includes one 5 cm (2 inch) coloured band outlining the exit.

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(2) Each outside marking including the band, has colour contrast to be readily distinguishable from the surrounding fuselage surface. The contrast is such that if the reflectance of the darker colour is 15% or less, the reflectance of the lighter colour is at least 45%. 'Reflectance' is the ratio of the luminous flux reflected by a body to the luminous flux it receives. When the reflectance of the darker colour is greater than 15%, at least a 30% difference between its reflectance and the reflectance of the lighter colour is provided.

(3) In the case of exits other than those in the side of the fuselage, such as ventral or tail cone exits, the external means of opening, including instructions if applicable, are conspicuously marked in red, or bright chrome yellow if the background colour is such that red is inconspicuous. When the opening is located on only one side of the fuselage, a conspicuous marking to that effect is provided on the other side.

CS 26.120 Interior emergency lighting and emergency light operation

Compliance with Part 26.120 is demonstrated by complying with CS 25.812 (b),(c),(d) &(h) or equivalent and CS 25.812 (a) and (e) or equivalent, or with the following:

(a) An emergency lighting system, independent of the main lighting system, is installed. However, sources of general cabin illumination may be common to both the emergency and the main lighting system if the power supply to the emergency lighting system is independent of the power supply to the main lighting system. The emergency lighting system includes:

(1) Illuminated emergency exit marking and locating signs, sources of general cabin illumination and interior lighting in emergency exit areas.

(2) the floor proximity emergency escape path marking provides emergency evacuation guidance for passengers when all sources of illumination more than 1.22 m (4 feet) above the cabin aisle floor are totally obscured. In the dark of the night, the floor proximity emergency escape path marking enables each passenger to:

(i) after leaving the passenger seat, visually identify the emergency escape path along the cabin aisle floor to the first exits or pair of exits forward and aft of the seat;

(ii) readily identify each exit from the emergency escape path by reference only to markings and visual features not more than 1.22 m (4 feet) above the cabin floor.

(b) Except for lights forming part of the emergency lighting subsystems provided in compliance with Part CAT.IDE.A.275 (b)(4) and (5) that serve no more than one assist means, are independent of the aeroplane's main emergency lighting systems, and are automatically activated when the assist means is deployed, each light required for interior and exterior emergency lighting:

(1) is operable manually both from the flight crew station and for aeroplanes on which a cabin crew member is required, from a point in the passenger compartment that is readily accessible from a normal cabin crew seat;

(2) has a means to prevent inadvertent operation of the manual controls;

(3) when armed or turned on at either station, remains lighted or becomes lighted upon interruption of the aeroplane's normal electric power;

(4) provides the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing;

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(5) has a cockpit control device that has an 'on', 'off', and 'armed' position.

(c) In addition to subparagraphs (a), and (b) above, for an aeroplane which had its initial Certificate of Airworthiness issued prior to 1 December 2006, the following conditions are met:

(1) For an aeroplane for which the application for the type certificate was filed prior to 1 May 1972:

(i) Each passenger emergency exit marking and each locating sign has white letters at least 25 mm (1 inch) high on a red background at least 5 cm (2 inches) high. These signs may be internally electrically illuminated, or self-illuminated by other than electrical means, with an initial brightness of at least 0.509 cd/m^2 (160 microlamberts). The colours may be reversed in the case of internally electrically illuminated signs if this will increase the illumination of the exit. On these aeroplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 0.318 cd/m^2 (100 microlamberts).

(ii) The sources of general cabin illumination provides enough general lighting in the passenger cabin so that the average illumination when measured at 102 cm (40-inch) intervals at seat armrest height, on the centreline of the main passenger aisle, is at least 0.54 lux (0.05 foot-candle).

(iii) The floor of the passageway leading to each floor level passenger emergency exit, between the main aisles and the exit openings is provided with illumination.

(2) For an aeroplane for which the application for the type certificate was filed on or after 1 May 1972, the interior emergency lighting specifications under which the aeroplane was type certificated. On these aeroplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 0.796 cd/m^2 (250 microlamberts).

(d) In addition to subparagraphs (a) and (b) above, for an aeroplane which had its initial Certificate of Airworthiness issued on or after 1 December 2006, and for which the application for the type certificate was filed prior to 1 May 1972, the following conditions are met:

(1) For an aeroplane that has a passenger seating configuration, excluding pilot seats, of:

(i) 10 seats or more, each passenger emergency exit locator sign and marking sign required by Part 26.110(d) has red letters at least 38 mm (1 ½ inches) high on an illuminated white background, and has an area of at least 135 cm^2 (21 square inches) excluding the letters. The lighted background-to-letter contrast is at least 10:1. The letter height to stroke-width ratio are not more than 7:1 nor less than 6:1. These signs are internally electrically illuminated with a background brightness of at least 86 cd/m^2 (25 foot-lamberts) and a high-to-low background contrast no greater than 3:1. Other passenger emergency exit signs required by Part 26.110(d) have red letters at least 38 mm (1 ½ inches) high on a white background having an area of at least 135 cm^2 (21 square inches) excluding the letters. These signs are internally, electrically illuminated or self-illuminated by other than electrical means and have an initial brightness of at least 1.27 cd/m^2 (400 microlamberts). The colours are reversed in the case of a sign that is self-illuminated by other than electrical means. On these aeroplanes, no sign continues to be used if its luminescence (brightness) decreases to below 0.796 cd/m^2 (250 microlamberts).

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(ii) 9 seats or less, passenger emergency exit signs that are required by Part 26.110(d), have red letters at least 25 mm (1 inch) high on a white background at least 5 cm (2 inches) high. These signs may be internally electrically illuminated or self-illuminated by other than electrical means, with an initial brightness of at least 0.509 cd/m^2 (160 microlamberts). The colours may be reversed in the case of a sign that is self-illuminated by other than electrical means. On these aeroplanes, no sign continues to be used if its luminescence (brightness) decreases to below 0.318 cd/m^2 (100 microlamberts).

(2) General illumination in the passenger cabin is provided so that when measured along the centreline of the main passenger aisle(s), and cross aisle(s) between main aisles, at seat armrest height and at 102 cm (40-inch) intervals, the average illumination is not less than 0.54 lux (0.05 foot-candle) and the illumination at each 102 cm (40-inch) interval is not less than 0.11 lux (0.01 foot-candle). A main passenger aisle is considered to extend along the fuselage from the most forward passenger emergency exit or cabin occupant seat, whichever is farther forward, to the most rearward passenger emergency exit or cabin occupant seat, whichever is farther aft.

(3) The floor of the passageway leading to each floor-level passenger emergency exit, between the main aisles and exit openings, is provided with illumination that is not less than 0.22 lux (0.02 foot-candle) measured along a line that is within 15 cm (six inches) of and parallel to the floor and is centred on the passenger evacuation path.

(e) Each sign required by Part 26.120 may use a universal symbolic exit sign. The design of the signs is chosen to provide a consistent set throughout the cabin.

CS 26.150 Compartment interiors

Compliance with Part 26.150 is demonstrated by complying with CS 25.853 and Appendix F or equivalent, CS 25.853(e) or equivalent and CS 25.791 or equivalent or with the following:

For each compartment occupied by the crew or passengers the following apply:

(a) With respect to flammability, materials (including finishes applied to the materials) meet the applicable test criteria prescribed in Appendix F, Part I of this CS-26 or other approved equivalent methods, unless the aeroplane was Type Certificated against an earlier standard, in which case that earlier standard applies. Moreover, upon any major replacement of any individual group of components as specified in Appendix F, Part I, sub-paragraph (a)(1)(i), such as interior ceiling panels, wall panels, etc., this individual group of components complies with Appendix F, Part I of this CS 26. (See GM1 26.150(a))

(b) Seat cushions, except those on flight crew member seats, on large aeroplanes, type certificated after 1 January 1958, comply with the fire protection specifications of Appendix F, Part II.

(c) (1) Heat release (other than for lavatory interiors or flight deck), for interior ceiling and wall panels (other than lighting lenses), partitions, and the outer surfaces of galleys, large cabinets and stowage compartments (other than underseat stowage compartments and compartments for stowing small items, such as magazines and maps), in large aeroplanes which had their initial Certificate of Airworthiness issued on or after 20 August 1988, but prior to 20 August 1990, and having a MOPSC of more than 19, comply with the heat release rate testing provisions of Appendix F Part IV, except that the total heat release over the first two minutes of sample exposure does not exceed 100 kilowatt-minutes per square metre, and the peak heat release rate does not exceed 100 kilowatts per square metre.

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(2) Heat release and smoke density (other than for lavatory interiors or flight deck) for interior ceiling and wall panels (other than lighting lenses), partitions, and the outer surfaces of galleys, large cabinets and stowage compartments (other than underseat stowage compartments and compartments for stowing small items, such as magazines and maps), in large aeroplanes, having a MOPSC of more than 19, which had their initial Certificate of Airworthiness issued on or after 20 August 1990, comply with the heat release and smoke density specifications of Appendix F Parts IV & V. (See GM1 26.150(c))

(d) Large aeroplanes having a MOPSC of more than 19, Type Certificated after 1 January 1958 upon the first substantially complete replacement of the cabin interior components, (i.e. interior ceiling and wall panels (other than lighting lenses), partitions, and the outer surfaces of galleys, large cabinets and stowage compartments (other than underseat stowage compartments and compartments for stowing small items, such as magazines and maps)), comply with the heat release and smoke density specifications of Appendix F Parts IV & V. (See GM1 26.150(d))

(e) If smoking is to be prohibited, there is a placard so stating, and if smoking is allowed, comply with the following:

(1) there is an adequate number of self-contained, removable ashtrays; and

(2) where the crew compartment is separated from the passenger compartment, there is at least one sign (using either letters or symbols) notifying when smoking is prohibited. When illuminated, it is legible to each person seated in the passenger cabin under all probable conditions of cabin illumination, notifying all passengers when smoking is prohibited. Signs which notify when smoking is prohibited are installed so as to be operable from either pilot's seat.

(f) Each disposal receptacle for towels, paper or waste is fully enclosed and constructed of materials adequate in resistance to fire such that any fire likely to occur in it under normal use is contained. The ability of the disposal receptacle to contain those fires under all probable conditions of wear, misalignment, and ventilation expected in service is demonstrated by test unless appropriate maintenance tasks are put in place to ensure that excess wear or misalignment are quickly repaired. A placard containing the legible words or symbology indicating 'No Cigarette Disposal' is located on or near each disposal receptacle door.

CS 26.155 Flammability of cargo compartment liners

Compliance with Part 26.155 is demonstrated by complying with CS 25.855 & Appendix F Part III, or equivalent or with the following:

(a) Large aeroplanes, Type Certificated after 1 January 1958, with Class C or D compartment, greater than 5.66 m^3 (200 cubic feet) have ceiling and sidewall liner panels which are constructed of:

(1) glass fibre reinforced resin, or

(2) materials which meet the flame penetration test specifications of Appendix F Part III, or other equivalent methods, or

(3) aluminium (only in the case of aluminium liner installations approved prior to 1 July 1989).

(b) For compliance with this paragraph, the term 'liner' includes any design features, such as a joint or fastener which would affect the capability of the liner to safely contain a fire.

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CS 26.160 Lavatory fire protection

Compliance with Part 26.160 is demonstrated by complying with CS 25.854, or equivalent or with the following:

(a) Each lavatory is equipped with a smoke detector system or equivalent that provides a warning light in the cockpit, or provides a warning light or audible warning in the passenger cabin that would be readily detected by a cabin crew member; and

(b) Each lavatory is equipped with a built-in fire extinguisher for each disposal receptacle for towels, paper, or waste, located within the lavatory. The extinguisher is designed to discharge automatically into each disposal receptacle upon occurrence of a fire in that receptacle.

CS 26.200 Landing gear aural warning

Compliance with Part 26.200 is demonstrated by complying with CS 25.729, or equivalent or with the following:

(a) Large aeroplanes have a landing gear aural warning device that functions continuously under the following conditions:

(1) For aeroplanes with an established approach flap position, whenever the flaps are extended beyond the maximum certificated approach climb configuration position in the Aeroplane Flight Manual and the landing gear is not fully extended and locked.

(2) For aeroplanes without an established approach climb flap position, whenever the flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.

(b) The warning system of sub-paragraph (a) of this paragraph:

(1) does not have a manual shut-off means readily available to the flight crew such that it could be operated instinctively, inadvertently or by habitual reflexive action;

(2) is, in addition to the throttle-actuated device, installed under the airworthiness type certification specifications; and

(3) may utilise any part of the throttle-actuated system, including the aural warning device.

(c) The flap position sensing unit may be installed at any suitable place in the aeroplane.

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Appendix F

Part I — Test Criteria and Procedures

Refer to CS-25 Appendix F Part I initial issue or later amendments.

Part II — Flammability of Seat Cushions

Refer to CS-25 Appendix F Part II initial issue or later amendments.

Part III – Test Method to Determine Flame Penetration Resistance of Cargo Compartment Liners

Refer to CS-25 Appendix F Part III initial issue or later amendments.

Part IV – Test Method to Determine the Heat Release Rate From Cabin Materials Exposed to Radiant Heat

Refer to CS-25 Appendix F Part III initial issue or later amendments.

Part V – Test Method to Determine the Smoke Emission Characteristics of Cabin Materials

Refer to CS-25 Appendix F Part III initial issue or later amendments.

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BOOK 2 – GUIDANCE MATERIAL (GM)

1 *GENERAL*

1.1 This Book 2 contains Guidance Material.

2 *PRESENTATION*

2.1 A numbering system has been used in which the Guidance Material uses the same number as the paragraph in Book 1 to which it refers. The number is introduced by the letters GM to distinguish the material from Book 1.

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SUBPART A — GENERAL

GM1 26.1 JAR-26 / JAR/CS-25 / FAR-25+121 / OPS / Part-26 / CS-26 / GM-26 cross-reference table

This table is intended to be a quick cross-reference table between those requirements contained on the one hand in Part–26, CS-26 and GM 26, and on the other hand their 'parent' airworthiness code, JAR-26, FAA's requirements FAR-25 and/or FAR Part 121, as well as related EU-OPS and new EASA Operational requirements. This table is only indicative and does not pre-empt compliance with applicable requirements, which shall be assessed by the competent authority.

JAR–26	JAR–25 / CS-25	FAR-25/ Part-121	OPS	Part-26	CS-26	GM-26
JAR 26.1	n/a	n/a	n/a	n/a	n/a	n/a
JAR 26.2	n/a	n/a	n/a	n/a	n/a	n/a
JAR 26.3	n/a	n/a	n/a	26.35	n/a	n/a
JAR 26.5	n/a	n/a	n/a	n/a	n/a	n/a
JAR 26.50	JAR 25.785(h), (j) & (k) at Change 8, 30/11/81 CS 25.785(g)	FAR 25.785(g), Amdt 25-51, 06/03/80 FAR 121.311 (d)(f) & (g) at Change 21, 17/02/98	OPS 1.730 CAT.IDE.A.205	Part 26.50	CS 26.50	GM1 26.50(c)
JAR 26.100	JAR 25.807(d)(7) at Change 13 and Amdt 93/1 08/03/93 CS 25.807	121.310(m)	n/a	Part 26.100	CS 26.100	n/a
JAR 26.105	JAR 25.813(d) to (f) at Change 8, 30/11/81 CS 25.813	121.310(f)	OPS 1.735 CAT.IDE.A.215	Part 26.105	CS 26.105	n/a

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JAR–26	JAR–25 / CS-25	FAR-25/ Part-121	OPS	Part-26	CS-26	GM-26
JAR 26.110	JAR 25.811(a) to (d) and (f) to (g) at Change 8, 30/11/81 JAR 25.811(e) at Change 14, 27/05/94 CS 25.811	121.310(b)	OPS 1.815 CAT.IDE.A.275	Part 26.110	CS 26.110	GM1 26.110 (e)(4)
JAR 26.120	JAR 25.812 (b),(c),(d) & (h) at Change 8, 30/11/81 JAR 25.812 (a) & (e) at Change12, 16/06/86 CS 25.812	FAR 121.310 (b),(c) & (d) at Change 21, 17/02/98	OPS 1.815(a)(1) CAT.IDE.A.275(b)	Part 26.120	CS 26.120	n/a
JAR 26.125	JAR 25.812 (f) & (g) at Change 8, 30/11/81 CS 25.812	FAR 121.310 (h)(1) at Change 21, 17/02/98	OPS 1.185(a)(1)(iv) and (v) CAT.IDE.A.275 (b)(4) and (5)	n/a	n/a	n/a
JAR 26.130	CS 25.810	FAR 25.2 (a) at Amdt 25-72, 20/08/90 FAR 121.310 (a) & (h)(2) at Change 21, 17/02/98	OPS 1.805 CAT.IDE.A.265	n/a	n/a	n/a

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JAR–26	JAR–25 / CS-25	FAR-25/ Part-121	OPS	Part-26	CS-26	GM-26
JAR 26.150	JAR 25.791 at Change. 8, 20/11/81 JAR 25.853(a) to (d) at Change 14, 27/05/94 JAR 25.853(e) at Change 13 plus Amdt 91/1, 12/04/91 JAR 25.853(f) and Appendix F at Change 14, 27/05/94 Appendix F, Part I, at Amdt 93/1, 08/03/93 Appendix F, Part II, III, IV, V at Change 13 05/10/89 CS 25.853	FAR 121.312	OPS 1.731 CAT.IDE.A.210	Part 26.150	CS 26.150 App. F	GM1 26.150 (a), GM1 26.150 (c), GM1 26.150 (d)
JAR 26.155	JAR 25.855 and Appendix F, Part III at Change.13 plus Amdt 93/1, 08/03/93 CS 25.855	121.314	n/a	Part 26.155	CS 26.155 App. F	n/a

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JAR–26	JAR–25 / CS-25	FAR-25/ Part-121	OPS	Part-26	CS-26	GM-26
JAR 26.160	JAR 25.854 at Change.13 at Amdt 93/1, 08/03/93 CS 25.854	121.308	n/a	Part 26.160	CS 26.160	n/a
JAR 26.200	JAR 25.729 at Amdt 93/1, 08/03/93 CS 25.729	121.289, Amdt 121-227	n/a	Part 26.200	CS 26.200	n/a
JAR 26.250	n/a	121.313(j)(1)(ii)	n/a	Part 26.250	n/a	n/a
JAR 26.260	CS 25.795	121.313(j)(1)(ii)	OPS 1.1255 ORO.SEC.100.A	n/a	n/a	n/a

SUBPART B — LARGE AEROPLANES

GM1 26.50(c) Cabin crew seat location with respect to injury risk

AC 25.785-1A, Section 7 is applicable when showing compliance with CS 26.50(c).

GM1 26.110(e)(4) Emergency Exit Markings

The indicating markings for all Type II and larger passenger emergency exit unlocking handle motions should conform to the general shapes and dimensions indicated by Figures 1 and 2.

NOTE: As far as is practicable the markings should be located to avoid obscuring viewing windows located on or alongside the exits, or coincidence with any other required marking or safety feature.

EXAMPLE MARKING FOR INDICATION OF LINEAR OPENING MOTION

Where practical and unambiguous arrow point and base of arrow shaft to be within ±25 mm (1 inch) of fully unlocked and fully locked positions respectively

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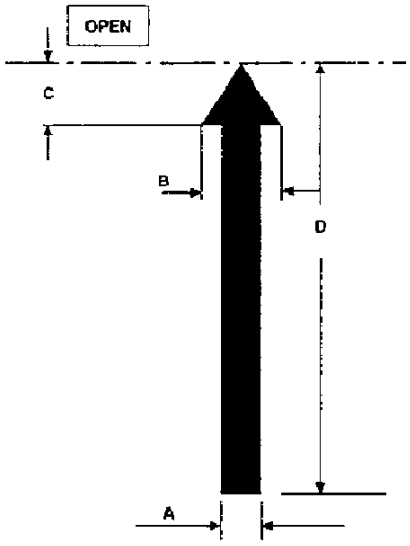
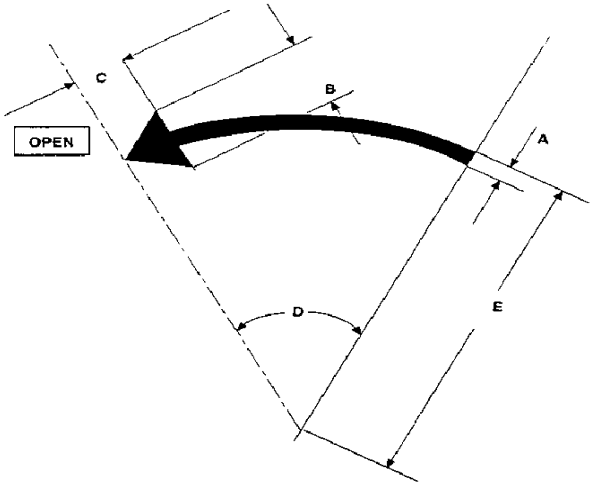


DIMENSIONS
A = 19 mm (0·75") minimum
B = 2 x A
C = B (recommended)
D = Indicative of the full extent of handle travel (each installation to be individually assessed)

FIGURE 1

EXAMPLE MARKING FOR INDICATION OF ROTARY OPENING MOTION



Arrow point and base of arrow shaft to be within ±25 mm (1 inch) of fully unlocked and fully locked positions respectively

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DIMENSIONS
A = 19 mm (0·75") minimum
B = 2 x A
C = B (recommended)
D = Full extent of handle centreline travel
E = Three quarters of handle length (where practicable)

FIGURE 2

GM1 26.150(a) Compartment interiors

'Major Replacement': More than 50% of any component types affected in the cabin are replaced. For example, 51% of the sidewall panels, or 51% of the ceiling panels.

GM1 26.150(c) Compartment interiors

Galley carts and containers are considered as 'open galley surfaces' and therefore are subject to the same requirements as galleys in this respect, namely CS 26.150(c). However, because of the rotatable nature of these components, and their limited lifespan, it is permissible to use galley carts and containers manufactured prior to 20/08/1990.

GM1 26.150(d) Compartment interiors

'Complete Replacement': All of the affected components in the cabin are replaced. (Whether the other components that are not affected are replaced is not relevant.)

1 The qualifying word 'substantially' may be used to avoid operators avoiding compliance by not replacing a minor, inconsequential cabin component and stating that there had not been a 'complete replacement'.

2 The definition does, therefore, permit individual replacement of cabin interior components without the mandatory replacement of all components at the same time. It should also be noted that removing components for refinishing and reinstalling them in the same aeroplane, or in a different aeroplane not subject to more stringent requirements, is considered 'refurbishment' and not 'replacement'.

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