European Union Aviation Safety Agency

Opinion No XX/202X

issued in accordance with Article 76(1) of Regulation (EU) 2018/1139

Implementation of the latest CAEP amendments to ICAO Annex 16, Volumes I, II and III

RMT.0514 — SUBTASK 3

WHAT THIS OPINION IS ABOUT

The first subparagraph of Article 9(2) of Regulation (EU) 2018/1139, as last amended by Regulation (EU) 2025/870, refers to the environmental protection requirements laid down in Volumes I, II and III of Annex 16 to the Chicago Convention, with which a product is required to comply.

On 27 March 2026, the Council of the International Civil Aviation Organization (ICAO) adopted Amendments 15, 12 and 3 to Volumes I, II and III respectively of Annex 16 'Environmental Protection' to the Convention on International Civil Aviation (ICAO Annex 16), which will become applicable on 1 January 2027.

These amendments introduce new Standards and Recommended Practices (SARPs), including new noise standards for subsonic and supersonic aeroplanes, new maximum permitted CO_2 emissions evaluation metric values for subsonic aeroplanes, new definitions, and clarifications relating to existing SARPs.

This Opinion proposes to update Regulation (EU) 2018/1139 to refer to the environmental protection requirements in the latest amendments to Volumes I, II and III of ICAO Annex 16.

The objective of this Opinion is to maintain a high uniform level of environmental protection and provide for a level playing field for all stakeholders in the aviation market.

REGULATION INTENDED TO BE AMENDED	**ED DECISIONS TO BE AMENDED AFTER THE ADOPTION OF THE REGULATION**
Regulation (EU) 2018/1139	— ED Decision 2012/020/R 'AMC and GM to Part 21 —Issue 2' — ED Decision 2023/013/R 'AMC & GM to Part 21 Light to Commission Regulation (EU) No 748/2012 — Issue 1'

AFFECTED STAKEHOLDERS

Design organisation approval (DOA) holders; production organisation approval (POA) holders; national competent authorities (NCAs)

WORKING METHODS

Development	**Impact assessment(s)**	**Consultation**
By EASA	Light	Public — NPA

RELATED DOCUMENTS / INFORMATION

— ToR RMT.0514 - Implementation of the latest CAEP amendments to ICAO Annex 16 Volumes I, II and III | EASA

— NPA 2026-02, published on 3.7.2026;

— CRD 2026-02, published along with this Opinion.

PLANNING MILESTONES: Refer to the latest edition of the EPAS.

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

Contents

1. About this Opinion 3
1.1. How this regulatory material was developed 3
1.2. The next steps 3
2. In summary — why and what 4
2.1. Why we need to act 4
2.1.1. Description of the issue 4
2.1.2. Who is affected by the issue 4
2.1.3. Conclusion on the need for rulemaking 4
2.2. What we want to achieve — objectives 5
2.3. How we want to achieve it — overview of the proposed amendments 5
2.3.1. Proposal 5
2.3.2. Applicability date 5
2.3.3. The legal basis 5
2.4. Stakeholders' views 5
2.5. Other relevant information 6
3. Expected benefits and drawbacks of the proposed regulatory material 8
4. Proposed regulatory material 10
5. Monitoring and evaluation 11
6. Actions to support implementation 12
7. References 13
Appendices 14

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

1. About this Opinion

1.1. How this regulatory material was developed

This rulemaking activity is included in *Volume II* of the 2026 European Plan for Aviation Safety (EPAS)[1] under Rulemaking Task (RMT) 0514 Subtask 3.

The European Union Aviation Safety Agency (EASA) developed the regulatory material in question in line with Regulation (EU) 2018/1139[2] (the Basic Regulation) and the Rulemaking Procedure[3], as well as in accordance with the objectives and working methods described in the Terms of Reference (ToR) for this RMT[4].

The draft regulatory material was publicly consulted in accordance with the ToR for this RMT through NPA 2026-02.

EASA reviewed the comments received and duly considered them for the preparation of the regulatory material presented here.

For information, EASA published the draft acceptable means of compliance (AMC) and guidance material (GM), which are intended to be issued to support the application of the amending regulation proposed in this Opinion.

1.2. The next steps

The Opinion is submitted to the European Commission which, based on the Opinion's content, shall decide whether to adopt the amendments to the Basic Regulation as proposed in the Opinion.

Following the adoption and issuance of this amending regulation, and to support its implementation, EASA will issue a decision with amendments to the AMC and GM to Annex I (Part 21) to Regulation (EU) No 748/2012[5], which implements the applicable environmental protection as referred to in in the Basic Regulation. When issuing this Decision, EASA will also provide feedback to the commentators and information to the public on who engaged in the process and provided comments on the draft AMC and GM during the consultation, which comments were received, how such engagement and consultation was used in rulemaking, and how the comments were considered.

---

1 European Plan for Aviation Safety (EPAS) 2026 - 15th edition | EASA

2 Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1, http://data.europa.eu/eli/reg/2018/1139/oj).

3 EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the 'Rulemaking Procedure'. See MB Decision No 01-2022 of 2 May 2022 on the procedure to be applied by EASA for the issuing of opinions, certification specifications and other detailed specifications, acceptable means of compliance and guidance material ('Rulemaking Procedure'), and repealing Management Board Decision No 18-2015 (EASA MB Decision No 01-2022 on the Rulemaking Procedure, repealing MB Decision 18-2015 (by written procedure) | EASA (europa.eu)).

4 ToR RMT.0514 - Implementation of the latest CAEP amendments to ICAO Annex 16 Volumes I, II and III | EASA

5 Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (recast) (OJ L 224, 21.8.2012, p. 1, http://data.europa.eu/eli/reg/2012/748/oj).

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

2. In summary — why and what

2.1. Why we need to act

2.1.1. Description of the issue

The first subparagraph of Article 9(2) of the Basic Regulation lays down the environmental protection requirements with which a product is required to comply. That subparagraph was last amended by Regulation (EU) 2025/870[6] to refer to the amendments to the SARPs laid down in Amendments 14, 11 and 2 to Volumes I, II and III respectively of ICAO Annex 16.

On 27 March 2026 at the fourth meeting of its 237th Session, the ICAO Council adopted Amendments 15, 12 and 3 to Volumes I, II and III respectively of Annex 16, which will become applicable on 1 January 2027.

These amendments introduce new standards, including noise standards for subsonic and supersonic aeroplanes and maximum permitted CO_2 emissions evaluation metric values for subsonic aeroplanes. A summary of these amendments is provided in Section 2.5 of this Opinion while Appendix 1 to this Opinion provides the actual amendments as adopted by the ICAO Council.

Outdated references and inconsistent implementation of the applicable environmental protection requirements would not ensure a level playing field for EU stakeholders nor the highest level of environmental protection for EU citizens. In addition, Member States would be required to file differences with respect to the ICAO SARPs.

2.1.2. Who is affected by the issue

Design and production organisations, Member States' national competent authorities, and EASA.

2.1.3. Conclusion on the need for rulemaking

EASA concluded, as explained further in Chapter 3, that intervention was necessary and that non-regulatory actions cannot effectively address the issue. Therefore, amendments to the Basic Regulation are required.

On the other hand, Delegated Regulation (EU) 2025/1065[7] amended Regulation (EU) No 748/2012 as regards the consistent implementation of the applicable environmental protection requirements. The latest amendments to ICAO Annex 16 do not require any amendment to the current requirements of Regulation (EU) No 748/2012.

[6] Commission Delegated Regulation (EU) 2025/870 of 28 February 2025 amending Regulation (EU) 2018/1139 of the European Parliament and of the Council, as regards the references to the provisions of the Chicago Convention (OJ L, 2025/870, 5.5.2025, http://data.europa.eu/eli/reg_del/2025/870/oj).

[7] Commission Delegated Regulation (EU) 2025/1065 of 28 May 2025 amending Regulation (EU) No 748/2012 as regards updating the references to the environmental protection requirements and correcting that Regulation (OJ L, 2025/1065, 12.8.2025, http://data.europa.eu/eli/reg_del/2025/1065/oj).

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. The regulatory material presented here is intended to contribute to achieving these overall objectives by addressing the issues described in Section 2.1.

More specifically, with the regulatory material presented here, EASA intends to maintain a high uniform level of environmental protection and ensure a level playing field for all stakeholders in the aviation market.

2.3. How we want to achieve it — overview of the proposed amendments

2.3.1. Proposal

This Opinion proposes to update the references to the latest amendments to ICAO Annex 16 in Article 9(2) of the Basic Regulation, i.e. Amendments 15, 12 and 3 to Volumes I, II and III respectively of ICAO Annex 16. The proposal differs from that in NPA 2026-02 due to the legal basis in Article 19(3) of the Basic Regulation, which only allows to update the amendment levels of Annex 16 volumes.

Note that the correction to point 21.B.85(a) of Annex I (Part 21) to Regulation (EU) No 748/2012, i.e. the removal of the term 'essential', as proposed in NPA 2026-02 is not proposed with this Opinion since it is not worth publishing a regulation for only one correction. The correction will be included at the next opportunity through an opinion that proposes to amend Regulation (EU) No 748/2012.

2.3.2. Applicability date

In view of the applicability date of 1 January 2027 for Amendments 15, 12 and 3 to Volumes I, II and III respectively of ICAO Annex 16, the applicability date of the Regulation amending the Basic Regulation should be the same as the entry into force date (i.e. 20 days following its publication in the *Official Journal of the European Union*).

2.3.3. The legal basis

The legal basis for amending the references to the SARPs of the Chicago Convention referred to in the first subparagraph of Article 9(2) of the Basic Regulation is Article 19(3) of that Regulation.

2.4. Stakeholders' views

Amendments 15, 12 and 3 to Volumes I, II and III respectively of ICAO Annex 16 were adopted following the recommendations made at the 13th meeting of the ICAO Committee on Aviation Environmental Protection (CAEP/13).

Those recommendations reflect the work carried out during the three years preceding that meeting in accordance with the CAEP/13 Work Programme and are the outcome of consensus-based discussions involving stakeholders concerned by the subject matter, together with representatives of civil aviation authorities.

During the consultation of the draft regulatory material EASA received 20 comments from 9 commentators (i.e. four national competent authorities, five aviation industry stakeholders, including associations).

The details of the comments and the responses to them are provided in CRD 2026-02.

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

Most of the comments are noted, accepted or partially accepted. The comments mainly express support to the amendments proposed in NPA 2026-02.

CRD 2026-02 clarifies the reasons for a direct reference to ICAO Annex 16 in the Basic Regulation.

In addition, CRD 2026-02 clarifies that the 1st subparagraph of Article 9(2) of the Basic Regulation relates to ICAO Annex 16 and that the proposed amendment is limited to the updates of the level of amendments of the references in accordance with the legal basis. It also clarifies that the 2nd subparagraph of that article relates to Annex III to the Basic Regulation, which applies to products.

Furthermore, CRD 2026-02 acknowledges that the high level of environmental protection has also a beneficial effect on occupational health protection when it relates to emissions.

Finally, the comment requesting clarification on how to verify compliance with Article 3 of Regulation (EU) No 748/2012 is not accepted since this article is not about the verification process of the continued validity of the type certificate and related certificate of airworthiness but about the conditions that must be met for the continued validity of a type certificate and related certificate of airworthiness that have been issued before the creation of EASA.

2.5. Other relevant information

ICAO Annex 16, Volume I, Amendment 15 consists of the following:

— new definitions for a derived version of an aircraft and for a supersonic aeroplane;

— introduction of Chapter 15 consisting of new landing and take-off (LTO) noise SARPs, including Chapter 14 noise limits, for supersonic aeroplanes for which the application for the type certificate is made on or after 1 January 2029;

— introduction of Chapter 16 consisting of new LTO noise SARPs, including noise limits 6 EPNdB and 2 EPNdB below the Chapter 14 noise limits depending on the maximum take-off mass (MTOM), for subsonic aeroplanes and propeller-driven aeroplanes with a MTOM over 8 618 kg, for which the application for the type certificate is made on or after 1 January 2029;

— for consistency with the new SARPs in Chapters 15 and 16, adjustment of the applicability dates in Chapters 12 and 14 and adaptation of Appendix 2 (noise certification evaluation method) and Attachment A (equations for the calculation of maximum permitted noise levels);

— adjustments to the document attesting noise certification for an aircraft (noise certificate) to refer to the new Chapters 15 and 16; and

— correction of minor typographical errors.

ICAO Annex 16, Volume II, Amendment 12 consists of the following:

— improvements to the applicability wording and introduction of the terms ‘parent engine’ and ‘no emissions change criteria’ to improve consistency and clarity for users;

— updates to the symbols and definitions to ensure consistency with Appendix 3 for use in the calculation of emissions indices;

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

— introduction of three methods for determining the maximum non-volatile particulate matter (nvPM) mass concentration, and of a further three methods for determining the maximum nvPM mass and number emissions indices;

— introduction of a new nvPM certification point reporting requirement for 57.5 % of the rated thrust to the list of reference points to be determined for nvPM mass and nvPM number emissions; and

— alignment of the nvPM SARPs with the Society of Automotive Engineers Aerospace Recommended Practices SAE ARP6320B 'Procedure for the Continuous Sampling and Measurement of Non-volatile Particulate Matter Emissions from Aircraft Turbine Engines' and SAE ARP6481A 'Procedure for the Calculation of nvPM Sampling and Measurement System Losses and System Loss Correction Factors'.

ICAO Annex 16, Volume III, Amendment 3 consists of the following:

— introduction of Chapter 3 with new maximum permitted CO_2 emissions evaluation metric values for subsonic jet aeroplanes (with a MTOM over 5 700 kg) and propeller-driven aeroplanes (with a MTOM over 8 618 kg)

  — for new aeroplane types and with limits that are more stringent than those of Chapter 2 by 10 and 3 % depending on the MTOM and for which the application for a type certificate is made on or after 31 December 2031, and

  — for in-production aeroplanes and with limits that are more stringent than those of Chapter 2 and for which the certificate of airworthiness is first issued on or after 1 January 2035;

— adjustments of Chapter 2 applicability dates for consistency with the new Chapter 3;

— adjustments to improve the clarity and accuracy of terms (direct flight testing and performance models), and to ensure the adequate and correct addressing of the different compliance methods, for the purpose of specific air range (SAR) determination and reporting procedures.

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

3. Expected benefits and drawbacks of the proposed regulatory material

EASA assessed that intervention was required and that there were no alternatives to rulemaking for the implementation, within the EU regulatory framework, of Amendments 15, 12 and 3 to Volumes I, II and III respectively of ICAO Annex 16 in order to effectively address the issue described in Section 2.1.

EASA also assessed the impacts of the proposed regulatory material to ensure that it delivers its full benefits with minimum drawbacks.

Since the proposal consists in a reference to the latest amendments to ICAO Annex 16, Volumes I, II and III, EASA based its impact assessment on the assessment carried out by the ICAO CAEP. The CAEP/13 report, ICAO Doc 10217[8], contains details on the impact assessment, the data collection and the methodology used to determine the new noise and CO_2 regulatory levels introduced in ICAO Annex 16, Volumes I and III. Appendix 2 to this Opinion contains an excerpt from ICAO Doc 10217 that provides information on the ICAO regulatory impact assessment in support of the rulemaking processes of ICAO Contracting States. A summary is provided in the table below.

Impact of the implementation

	Impact	**Rationale**
Safety	none	—
Security	none	—
Efficiency	none	—
Environmental protection	positive	*Annex 16, Volume I:* The implementation of the amendment will introduce more stringent noise limits for subsonic and supersonic aeroplanes. It will also provide greater clarity regarding the implementation of Annex 16, Volume I. *Annex 16, Volume II:* The new amendment provides greater clarity to support the straightforward implementation of the new SARPs by manufacturers. Although no emissions maximum levels were adopted, the implementation of the provisions within the EU regulatory framework will provide for a level playing field for all actors in the aviation market and will ensure a high uniform level of environmental protection. *Annex 16, Volume III:* The amendment represents a crucial milestone, and the increased stringency of the new CO_2 standard supports ICAO's Long-Term Aspirational Goal (LTAG[9]). It applies to both in-production and new-type aeroplanes and will encourage the use of more fuel-efficient technologies in aircraft designs.

[8] ICAO Doc 10217, Committee on Aviation Environmental Protection, Thirteenth Meeting - Order Number: 10217 - ISBN 978-92-9275-839-4.

[9] Long term global aspirational goal (LTAG) for international aviation

Economic	negligible	For EASA: — one-off cost for the transposition of the provisions into the EU regulatory framework. For industry: — one-off cost for the adoption of internal processes to demonstrate compliance with the new amendment; — some technological development costs will be incurred to ensure the compliance of products with the new noise and CO_2 standards, noting that ICAO CAEP has confirmed that the technology necessary to meet those standards is already available or will be available by their date of applicability; — those costs would likely still be incurred by industry even if the EU regulations were not amended, since the new ICAO standards are expected to be adopted in other regions of the world. Harmonised standards across regions should help reduce overall costs for industry.

The environmental protection benefit of the proposal outweighs the negligible cost impact.

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

4. Proposed regulatory material

The regulatory material is proposed in the Annex to this Opinion.

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

5. Monitoring and evaluation

EASA does not intend to monitor through oversight and standardisation activities the effectiveness of the transposition of Amendments 15, 12 and 3 to Volumes I, II and III respectively of ICAO Annex 16.

However, the effectiveness of the actions contained in the EPAS in the area of environmental protection (including RMT.0514) is continuously monitored through the European Aviation Environmental Report[10], which is updated every three years and provides indicators of the environmental protection of the civil aviation sector in the EU.

10 Downloads | EASA

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

6. Actions to support implementation

There are no specific actions planned to support the implementation of the proposed amendments.

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

7. References

— ICAO State Letter AN 1/17.14-26/35, 'Adoption of Amendment 15 to Annex 16, Volume I', 29 April 2026

— ICAO State Letter AN 1/17.14-26/36, 'Adoption of Amendment 12 to Annex 16, Volume II', 29 April 2026

— ICAO State Letter AN 1/17.14-26/37, 'Adoption of Amendment 3 to Annex 16, Volume III', 29 April 2026

— ICAO Doc 10217 - Committee on Aviation Environmental Protection – Report – Thirteenth Meeting- Montréal, 17-28 February 2025

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union

Appendices

Please refer to:

— Appendix 1 ‘Amendments to ICAO Annex 16, Volumes I, II and III’ to Opinion No xx/20XX

— Appendix 2 ‘Information on the ICAO regulatory impact assessment’ to Opinion No xx/20XX

TE.RPRO.00058-013 © European Union Aviation Safety Agency. All rights reserved. ISO 9001 certified.
Proprietary document. Copies are not controlled. Confirm revision status through the EASA intranet/internet.

An agency of the European Union