



# Explanatory Note to Decision 2022/009/R

## CS-STAN Issue 4

RELATED NPA/CRD: 2021-06 — RMT.0690

### EXECUTIVE SUMMARY

The objective of this Decision is to reduce the regulatory burden and cost for general aviation (GA) with regard to the embodiment of specific Standard Changes (SCs) and Standard Repairs (SRs) in certain aircraft, while improving the level of safety.

The amendments introduced by this Decision are based on lessons learned and experience gained during the application of CS-STAN, proposals submitted by stakeholders, and on technological innovations introduced by the industry, which can bring safety benefits and allow the implementation of the latest technologies in a cost-efficient manner.

EASA also specifies in CS-STAN Issue 4, when applicable and justified, the acceptance of parts without an EASA Form 1 in accordance with point 21.A.307(b)(4) of Commission Implementing Regulation (EU) 2021/699, which shall apply from 18 May 2022.

The amendments are expected to provide economic benefits for the GA community by reducing the regulatory burden regarding the embodiment of SCs and SRs in certain aircraft when applying the acceptable methods, techniques and practices included in CS-STAN, as well as when accepting certain new parts without an EASA Form 1.

The amendments are not expected to have any significant social or environmental impact.

<b>Action area:</b>	General aviation		
<b>Related rules:</b>	CS-STAN		
<b>Affected stakeholders:</b>	Operators other than airlines; maintenance organisations (MOs); maintenance engineers or mechanics		
<b>Driver:</b>	Efficiency/proportionality	<b>Rulemaking group:</b>	No
<b>Impact assessment:</b>	No	<b>Rulemaking Procedure:</b>	Standard

### EASA rulemaking procedure milestones

Start	Public consultation	Decision
Terms of Reference	NPA 2021-06	Certification Specifications, Acceptable Means of Compliance, Guidance Material
9.6.2016	7.4.2021	27.4.2022



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## 1. About this Decision

The European Union Aviation Safety Agency (EASA) developed Decision 2022/009/R in line with Regulation (EU) 2018/1139<sup>1</sup> (the Basic Regulation) and the Rulemaking Procedure<sup>2</sup>.

This rulemaking activity is included in Volume II of the European Plan for Aviation Safety (EPAS) for 2022–2026<sup>3</sup> under rulemaking task (RMT).0690. The scope and timescales of the task were defined in the related Terms of Reference<sup>4</sup>.

The *draft* text of this Decision has been developed by EASA.

All the interested parties were consulted<sup>5</sup> through Notice of Proposed Amendment (NPA) 2021-06<sup>6</sup>.

During the public consultation, EASA received a total of 308 comments from 23 stakeholders. All commentators strongly supported the use of and regular updates to CS-STAN.

The following two proposed changes were not retained and are, therefore, not included in Issue 4:

- CS STAN.07 *Identification of technical/non-technical revisions*, and
- CS STAN.45 *Flammability protection*.

More details on all the comments received and EASA's responses to them are to be found in Comment-Response Document (CRD) 2021-06<sup>7</sup>.

The *final* text of this Decision has been developed by EASA, taking into consideration the comments received.

The major milestones of this rulemaking activity are presented on the title page.

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<sup>1</sup> 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) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139>).

<sup>2</sup> 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 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by EASA for the issuing of opinions, certification specifications and guidance material (<http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure>).

<sup>3</sup> <https://www.easa.europa.eu/downloads/134919/en>

<sup>4</sup> <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0690>

<sup>5</sup> In accordance with Article 115 of Regulation (EU) 2018/1139, and Articles 6(3) and 7 of the Rulemaking Procedure.

<sup>6</sup> NPA 2021-06 'Regular update of the Certification Specifications for Standard Changes and Standard Repairs — CS-STAN Issue 4' (<https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2021-06>).

<sup>7</sup> <https://www.easa.europa.eu/document-library/comment-response-documents>

## 2. In summary — why and what

### 2.1. Why we need to amend CS-STAN — issue/rationale

Issue 1 of CS-STAN was issued on 8 July 2015<sup>8</sup>, and it contained 16 standard changes (SCs) and 2 standard repairs (SRs). Issue 1 was primarily based on a review of applications for minor change approvals received by EASA. Since the publication of Issue 1, EASA keeps receiving feedback and proposals as regards the inclusion of new SCs or SRs that are of low risk and do not require approval. A selection of those proposals has been included in Issue 2 and Issue 3 of CS-STAN in 2017 and 2019 respectively.

Subject Issue 4 introduces new SCs and SRs that were proposed by stakeholders and considered beneficial by EASA — also considering stakeholder feedback on the improvement of existing topics.

In addition, the recent amendment to Part 21<sup>9</sup> allows the acceptance of parts with a negligible safety effect without an EASA Form 1. EASA conducted an analysis of the parts used in SCs in CS-STAN to determine whether they would meet the ‘negligible safety effect’ criteria. The outcome of the analysis has resulted in only a limited number of parts which would require an EASA Form 1 (e.g. the antenna connected to ETSO-authorized equipment, replacement of the entire balloon bottom end or balloon fuel cylinders).

### 2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This Decision will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 2.1.

The specific objective of CS-STAN is to support the operation of GA aircraft in Europe by reducing the regulatory burden as regards the embodiment of simple changes and repairs in certain aircraft when applying the acceptable methods, techniques, and practices of CS-STAN. CS-STAN also provides the opportunity to encourage the embodiment of safety-enhancing changes in GA aircraft.

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

#### Reduction of the regulatory burden for GA

15 new SCs have been added to CS-STAN through Issue 4, allowing the embodiment of simple changes and repairs without approval, thus resulting in less administrative burden and lower costs.

#### Safety-enhancing standard changes

CS-STAN Issue 4 introduces the following three SCs that can increase pilot awareness of other traffic and, therefore, reduce the risk of mid-air collisions:

- SC057a *Installation of an electronic conspicuity (EC) function,*

<sup>8</sup> <https://www.easa.europa.eu/document-library/agency-decisions/ed-decision-2015016r>

<sup>9</sup> Commission Delegated Regulation (EU) 2021/699 of 21 December 2020 amending and correcting Regulation (EU) No 748/2012 as regards the instructions for continued airworthiness, the production of parts to be used during maintenance and the consideration of ageing aircraft aspects during certification (OJ L 145, 28.4.2021, p. 1) (<https://www.easa.europa.eu/document-library/regulations/commission-delegated-regulation-eu-2021699>)

- SC061a *Installation of an aircraft tracking system*, and
- SC062a *Installation of an awareness function or awareness device*.

Stall and spin (loss of control) at low altitudes cause the highest number of fatal accidents in operations with small aeroplanes. Small aeroplanes are equipped with stall-warning systems, but still accidents do occur. CS-STAN Issue 4 provides a new SC (SC252a) where a complementary tactile warning can be introduced in the control column. Research has shown that pilots react better to tactile input, compared to aural or visual cues.

Weather is also a contributing factor in accidents. Therefore, the installation of a device that is able to receive uplinked weather radar information is included in CS-STAN Issue 4 (SC253a).

#### 2.4. What are the stakeholders' views — outcome of the consultation

During the public consultation of the draft SCs, a total of 308 comments from 23 stakeholders were received. The GA community strongly supports the use of and regular updates to CS-STAN, since it provides a good tool for GA to implement SCs/SRs in a standardised and cost-effective manner with limited administrative burden.

The addition of the information about the need (or not) of an EASA Form 1 with parts that are installed in a SC was appreciated. However, it also prompted comments and questions which show that some of the SCs introduced require more detailed explanation.

The two most commented proposals were the following:

- Standard Change CS-SC005b *INSTALLATION OF AN ADS-B OUT SYSTEM COMBINED WITH A TRANSPONDER SYSTEM*, and
- Standard Change CS-SC057a *INSTALLATION OF AN ELECTRONIC CONSPICUITY (EC) FUNCTION*.

Both received in total over 25 % of all the comments. Most comments have resulted in EASA accepting the changes in the text of these SCs, and the comments have contributed to the improvement of the quality and understanding of these SCs.

Also, following the comments received, two changes proposed in the NPA have not been retained in the final text:

- CS STAN.07 *Identification of technical/non-technical revisions*

The proposed general point CS STAN.07 has not been retained. The non-technical changes, when introduced in the contents of each SC/SR, will be indicated as normal revisions to the SCs/SRs.

- CS STAN.45 *Flammability protection*

The comments received made clear that the introduction of design-related details in CS STAN.45 would potentially create non-intended consequences regarding installer responsibilities. Therefore, if needed, specific provisions addressing flammability issues will be included in the specific SC or SR, as applicable.

#### 2.5. What are the benefits and drawbacks of the amendments

The amendments to CS-STAN are not regulatory changes but allow a wider scope of changes to be implemented by using the standard change process which does not require authority approval.



The new and amended SCs in CS-STAN will allow for an even wider scope of changes being embodied in aircraft, thus supporting a standardised implementation and installation of safety-enhancing changes.

No drawbacks are identified.



### 3. How do we monitor and evaluate the application of the amended CS-STAN

The SCs/SRs concept is part of EASA's effort to reduce the regulatory burden for GA. It provides an alternative to the conventional process for approving a modification to an aircraft type design for cases where EASA acknowledges that there is little added value in a conventional design approval process, and that the SC or SR is performed using a well-established best practice.

Monitoring the number of applications received by EASA for the approval of minor changes and minor repairs in GA is expected to be a relevant indicator of the effectiveness of CS-STAN.

Additionally, the voluntary reporting system that was introduced with CS-STAN Issue 2 is also expected to provide reliable feedback regarding the actual application of the SCs/SRs.



## 4. References

### 4.1. Related regulations

n/a

### 4.2. Related decisions

- Executive Director Decision 2019/010/R of 4 April 2019 adopting new and amending existing Certification Specifications for Standard Changes & Standard Repairs (CS-STAN)
  - ‘CS-STAN — Issue 3’

### 4.3. Other reference documents

n/a



## 5. Related document

- CRD to NPA 2021-06 'Regular update of the Certification Specifications for Standard Changes and Standard Repairs — CS-STAN Issue 4' (RMT.0690)<sup>10</sup>

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<sup>10</sup> Published separately at <https://www.easa.europa.eu/document-library/comment-response-documents>.

