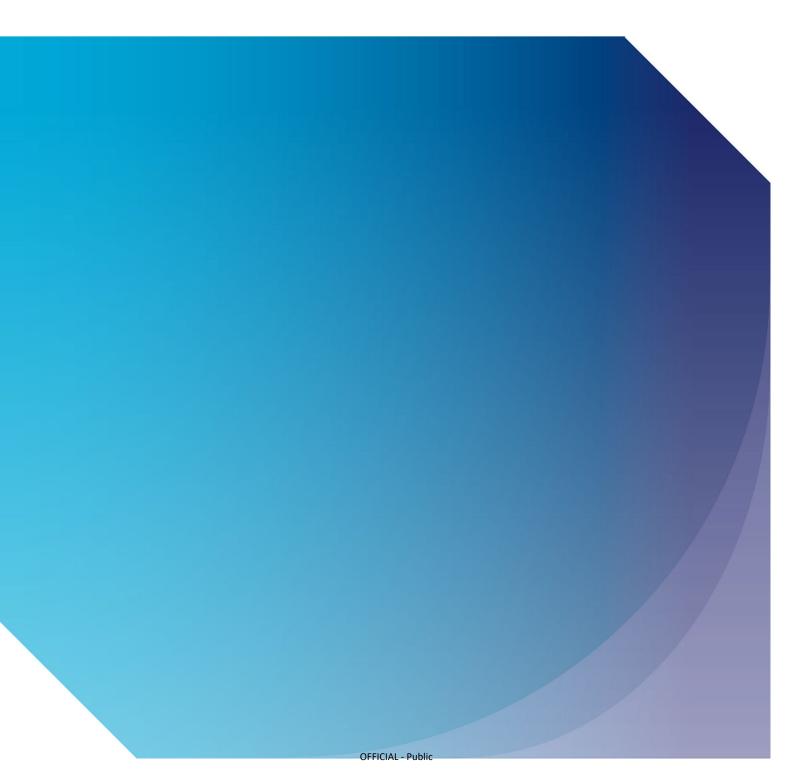


Consultation on Changes to UK Regulation (EU) No. 965/2012 with regards to the Specific Cargo Compartment Safety Risk Assessment

CAP3082



Published by the Civil Aviation Authority, 2025

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First published 2025

Published date: 20 February 2025 Closing date: 02 May 2025

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The latest version of this document is available in electronic format at: https://www.caa.co.uk/CAP3082

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Foreword

- **1.1** The Chicago Convention is an agreement between States that formalised the International Civil Aviation Organisation (ICAO) as the agency responsible for the development and oversight of policies, standards and procedures aimed at ensuring that international air transport is conducted safely and in an orderly manner.
- **1.2** ICAO's core mandate is to assist States in achieving the highest possible degree of uniformity in civil aviation regulations, standards, procedures, and organisation.
- **1.3** This is achieved through the publishing of Standards and Recommended Practices (SARPS) contained in 19 Annexes to the Convention, which are internationally agreed by 193 Contracted States and constitute the core principles under which International Air transport is conducted in a global standardised manner.
- **1.4** Annex 6, Part I contains the SARPS for the Operation of Aircraft in International Commercial Air Transport, which reflect the minimum Standards applicable to the international operation of aeroplanes. These international commercial air transport (CAT) operations include scheduled international air services and non-scheduled international air transport operations for remuneration or hire, which include the transport of passengers, cargo and mail.
- **1.5** The purpose of Annex 6, Part I, is to contribute to the safety of international air navigation by providing the criteria for safe operating practice and to contribute to the efficiency and regularity of international air navigation.
- **1.6** States are encouraged to facilitate the passage over their territories, of aeroplanes in international commercial air transport belonging to other States, which operate in conformity with the ICAO standards.

Chapter 2 – GENERAL PRINCIPLES

- **2.1** The UK is a signatory State to the Chicago Convention and therefore as an ICAO Member State, has adopted the ICAO Annexes and enacted them into UK Law.
- **2.2** The SARPS contained in Annex 6, Part I are reflected in UK Law, through the Air Navigation Order 2016 and in UK Regulation (EU) 965/2012 (The Air Operations Regulation) which apply to all UK operators conducting domestic and international commercial air transport.
- **2.3** ICAO and its Contracting States have identified that risks posed by the transport of cargo by air may not be sufficiently mitigated. In particular, the hazards and risks associated with items which are offered for transport and may contribute to an overwhelming situation for the aeroplane or its systems during any potential incident, are not presently required to be fully considered.
- 2.4 Aeroplane manufacturers have expressly stated that cargo compartments were not designed to contain the consequences of the hazards posed by some items, which may either individually or collectively, put the aeroplane at risk of an uncontrollable fire in the cargo compartment because the fire they produce, may exceed the cargo compartment fire suppression capabilities demonstrated during aeroplane certification.
- **2.5** At present, no complete consideration of the cargo compartment fire suppression standards demonstrated during certification are required to be considered by an operator when determining the items to be transported in the cargo compartment.
- 2.6 Amendment 44 to Annex 6, Part I, introduced a new Chapter 15 which contains Standards that:
 - 2.6.1 Require the State of an operator to ensure that operators establish policies and procedures for the transport of items in the cargo compartment, which include the conduct of a specific safety risk assessment that includes at least:
 - (a) the hazards associated to the items being carried,
 - (b) the capability of the operator,
 - (c) operational considerations
 - (d) the capabilities of the aeroplane and its systems,
 - (e) the packing and packaging of the items being carried,
 - (f) the containment characteristics of unit load devices (ULD),
 - (g) the safety of the supply chain for the items being transported and,
 - (h) the quantity and distribution of dangerous goods items to be transported in the cargo compartment.
 - 2.6.2 Require operators to establish policies and procedures that address the items to be transported in the cargo compartment, which must ensure to a reasonable certainty, that in

the event of a fire involving those items, it can be detected and sufficiently suppressed or contained by the elements of the aeroplane design associated with cargo compartment fire protection, until the aeroplane makes a safe landing.

2.6.3 Require that the elements of the cargo compartment(s) fire protection system, as approved by the State of Design or State of Registry, and a summary of the demonstrated cargo compartment fire protection certification standards, be provided in the aeroplane flight manual or other documentation supporting the operation of the aeroplane.

Chapter 3 – Justification and Policy Objectives

- **3.1** The CAA is considering conducting the necessary regulatory changes to adopt the new SARPS of Annex 6 in UK Regulation (EU) No. 965/2012 (The Air Operations Regulation). The new regulatory requirements will apply only to the operation of aeroplanes by operators carrying out Commercial Air Transport.
- **3.2** The two highest risks in the CAA's Regulator Safety Management System (RSMS), are recorded as "uncontrolled lithium battery fire in the cargo compartment of an aircraft inbound to or outbound from, the UK." The proposed regulatory changes are an essential part of the UK CAA's mitigation strategy and risk level reduction when applying these requirements to the transport of cargo, mail or baggage in aeroplanes, which constitute the majority of such operations.
- **3.3** Through this regulatory action, the UK CAA will be able to drive the reduction of the risk level and provide mechanisms for mitigation of these two risks in its RSMS, by establishing the framework for operators to:
 - a) adequately mitigate risks introduced by unknown entities in the supply chain,
 - b) adequately mitigate the consequences of a potential fire hazard due to the presence of incorrectly identified and classified items which are offered for transport.
- **3.4** Annex III, Subpart ORO.GEN.110 Operator Responsibilities, paragraph (f), of The Air Operations Regulation, requires operators to establish procedures and instructions for the safe operation of each aircraft type, containing ground staff and crew member duties and responsibilities, for all types of operation on the ground and in flight.
- **3.5** Additionally, Annex III, Subpart ORO.GEN.200 Management System, paragraph (a)(3) of The Air Operations Regulation requires operators to establish, implement and maintain a management system that includes the identification of aviation safety hazards entailed by the activities of the operator, their evaluation and the management of associated risks, including taking actions to mitigate the risk and verify their effectiveness.
- **3.6** Whilst the general responsibilities of the operator are listed in both Implementing Rules (IRs) mentioned above, the specific requirements introduced by amendment 44 to Annex 6 Part I, Chapter 15 are not captured in the current Air Operations Regulation. To achieve this, a new IR will be added to Annex III, as Subpart ORO.GEN.111 detailing the specific requirements, with supporting Acceptable Means of Compliance (AMC)and Guidance Material (GM).
- **3.7** The following policy objectives are intended to be achieved with the introduction of these changes:
 - 3.7.1 The CAA remains compliant with the ICAO SARPS for international air transport, established by Annex 6, Part I.
 - 3.7.2 The safety risks which are inherent to the transport of dangerous goods are adequately considered and mitigated.

- 3.7.3 The risk assessments address and take into consideration the following aspects:
 - a) the capabilities of the operator and the aeroplane systems,
 - b) how the dangerous goods are being offered for transport,
 - c) additional mitigation measures that may be introduced to enhance the safety features of the aeroplane,
 - d) the confidence level that the operator may have in the safety of the supply chain; and
 - e) identification of necessary mitigations, when considering quantities and distribution of dangerous goods items being carried.
- 3.7.4 Emphasis is given to a risk-based approach to achieve regulatory compliance in a manner which:
 - a) will provide operators with operational flexibility to adopt mitigating measures which are proportionate to the risks identified in specific geographic areas of operation and the confidence in the supply chain,
 - b) will allow the operator to manage the risks associated with the carriage of lithium batteries when carried with other dangerous goods, and
 - c) will allow the operator to proactively improve their safety management system.
- **3.8** ICAO Doc. 10102 Guidance for Safe Operations Involving Aeroplane Cargo Compartments has been developed to assist operators in the conduct of the specific risk assessment. It will provide guidance on how operators should approach the analysis of operational hazards, to enable them to manage safety risks and achieve target levels of safety performance with regards to the transport of items of any nature in the cargo compartment of their aeroplanes.

Chapter 4 - Consultation and Affected Regulation

- **4.1** The purpose of this consultation is to gain feedback from industry and the wider public on the proposed amendments.
- **4.2** This consultation document relates to UK Regulation (EU) No. 965/2012 (The Air Operations Regulation)
- **4.3** As part of the proposed regulatory change, amendments will be made to the Implementing Rules in an area related to the Operator's Responsibilities, which include changes for conducting a specific risk assessment, as identified in Appendix A to this document.
- 4.4 The CAA is also considering developing AMC and GM necessary to support the implementation of these changes to the regulatory requirements. These will be published in draft form as part of this consultation, with a definitive version published as close to the laying of the Statutory Instrument (SI) as possible.
- **4.5** This consultation includes a dedicated questionnaire for operators to provide inputs on potential costs and benefits that need to be considered in the adoption and implementation of the proposed changes. Where operators can volunteer this information, it will assist the CAA in conducting an accurate assessment and analysis of the proposed changes.
- **4.6** It is important to the CAA that everyone has an opportunity to voice their opinion on matters that could affect them. For this reason, we are asking for comments on the proposed changes to the regulations and the CAA welcomes comments from every sector of the community. This includes the general public, government agencies and all sectors of the aviation industry, whether as an aviator, aviation consumer and/or provider of related products and services.
- **4.7** Whilst the CAA welcomes responses from anyone, who may wish to express an opinion on the proposed changes, the scope of the proposed changes is limited and will affect aeroplane operators (air carriers) that transport passengers, their baggage, cargo or mail in Commercial Air Transport.
- **4.8** All responses will be collected through the consultation platform "Citizen Space" and e-mail responses will not be accepted. The CAA will publish a consultation Response Document at the conclusion of the consultation.

Chapter 5 - Explanatory Notes

- **5.1** Regulations (also called Implementing Rules or IRs) contain requirements which must be complied with.
- **5.2** The CAA's statutory role is to consider the required content of the regulations, consult on proposed changes, take consultation responses into account before forming a final view and then communicating that view to the Secretary of State (Department for Transport) in the form of an Opinion Instruction Document (OID).
- **5.3** The OID is published, and the Secretary of State makes the final decision whether to implement CAA's proposed changes to the regulations, and the final wording. The proposed wording of the regulations in this consultation may change when the Secretary of State considers the proposal to amend the regulations.
- **5.4** AMC are means by which the requirements in the Implementing Rule and the Essential Requirements of the Basic Regulation to which it relates can be met. However, entities may show compliance by other means.
- **5.5** An entity may choose to offer an alternative means of compliance (AltMOC) which must be reviewed and accepted by the CAA. However, it is important to note they will lose the presumption of compliance provided by the CAA AMC so it is essential for the operator to demonstrate that the AltMOC meets the intent of the Implementing Rule and the Essential Requirements of the Basic Regulation.
- **5.6** GM is non-binding guidance and provides explanatory and interpretation material on how to achieve the requirements in the law and the AMC. It contains information, including examples, to assist the applicant with the interpretation of the legislative provisions.

Chapter 6 - Summary of Questions, Responses and Next Steps

- **6.1** You will be asked to provide personal information, such as name, email address, if the responses reflect your personal views and if you wish the comments and/or responses to be published anonymously. Additionally, you will be asked if you are officially representing an organisation and if you are authorised to submit feedback on behalf of the organisation, and if that is the case, the organisation's name, and to what type/group of organisation do the comments and responses best represent (see below example).
- **6.2** In the next part of the consultation, the questions refer to the Policy Proposal, where you will be asked whether you and/or your organisations agree or not with the Policy Proposal. If you do not agree, you will need to identify which of the proposed amendments you disagree with, an explanation on why you disagree and what you would suggest instead (see below example). You will have an opportunity to specifically respond to each section of the regulation in Page 3, through a hyperlink to each section you wish to comment on.
- **6.3** You will be asked to comment on each section of the relevant regulation where the proposed changes will be displayed. You are not required to comment on every new or amended rule. You will also be asked to indicate what issue you have identified, your proposed solution and if you agree with the date on which the changes will become effective.
- **6.4** The questions should be answered for each individual section where the proposed changes will be introduced.
- **6.5** In the next pages of the consultation, you will be asked to provide estimates of what costs could be incurred for the adoption and implementation of these regulatory changes. In the feedback, these are referred to as costs and benefits.

Costs could include but are not limited to, those related to transition into, and adoption of these changes, additional oversight requirements, training requirements, staff resourcing.

Benefits are costs that an operator avoids due to the implementation of the Specific Risk Assessment, which enables sufficient mitigation and prevention of accidents or incidents that could result in the loss of the aircraft, revenue, reputation or any other assets.

Itemisation and specification of these costs would be beneficial to support the CAA's understanding of costs that should be considered, beyond the existing Compliance Monitoring System (CMS) and Safety Management Systems (SMS) that are already required to be in place by virtue of The Air Operations Regulation.

- **6.6** Responses to this consultation through the online survey must be submitted by no later than 02 May 2025.
- **6.7** At the end of the consultation response period, the CAA will review each comment and response received. The output of the consultation will be taken into consideration and a Response Document (RD) will be published.

6.8 This feedback will be used to guide the development of the regulatory changes, refine the AMC and GM and contribute to the assessment of monetary impact to industry.

APPENDIX A – Proposed Changes

ORO.GEN.111 Additional operator responsibilities - Aeroplanes

The operator of an aeroplane conducting commercial air transport operations, shall establish policies and procedures for the transport of items in the aircraft cargo compartment, that:

(a) ensure that in the event of a fire involving those items, it can be detected and sufficiently suppressed or contained by the elements of the aeroplane design associated with cargo compartment fire protection, until the aeroplane makes a safe landing; and

b) include the conduct of a specific safety risk assessment which addresses the hazards associated with the items being transported in the cargo compartment of the aircraft.

AMC1 ORO.GEN.111(a) Additional operator responsibilities -Aeroplanes

CARGO COMPARTMENT FIRE PROTECTION

(a) The policies and procedures established by the operator, should

(1) identify mitigating actions that may be employed to address the severity of the consequences in the event of a fire in the cargo compartment, and

(2) ensure to a reasonable certainty that the aircraft fire protection is sufficiently effective, to allow for the aircraft to safely divert and land at a designated alternate, or to safely land at the intended destination.

AMC1 ORO.GEN.111(b) Additional operator responsibilities – Aeroplanes

CARGO COMPARTMENT SPECIFIC SAFETY RISK ASSESSMENT

(a) The operator should identify the safety hazards and manage the associated risks following the management system implemented in accordance with ORO.GEN.200. The specific safety risk assessment should include at least the following:

- (1) hazards associated with the properties of the items to be transported;
- (2) capabilities of the operator in relation to requisite knowledge, skills and resources to implement and oversee the systems and processes required to support its operations;
- (3) operational considerations (e.g. area of operations, diversion time);
- (4) capabilities of the aeroplane and its systems (e.g. cargo compartment fire suppression capabilities);
- (5) containment characteristics of unit load devices;
- (6) packing and packaging;
- (7) safety of the supply chain for items to be transported; and
- (8) quantity and distribution of dangerous goods items to be transported.

(b) Where provided, the elements of the cargo compartment(s) fire protection system as approved by the State of Design or State of Registry and a summary of the demonstrated cargo compartment fire protection certification standards, should be considered in the specific risk assessment, to identify any requirements for additional mitigations in the event of a fire and to manage risks associated with items to be transported.

GM1 ORO.GEN.111 Additional operator responsibilities - Aeroplanes

GENERAL

Guidance on:

a) what factors and how an operator may consider these, for the conduct of the cargo compartment specific safety risk assessment;

b) the hazards associated with the transport of items in the cargo compartment and their consequences;

c) mitigation strategies to address the likelihood and severity of those consequences;

d) defining the capabilities of the aeroplane and its systems;

e) the elements of cargo compartment fire protection and associated demonstrated standards; and

f) the responsibilities for the transport of dangerous goods;

is contained in the ICAO Guidance for Safe Operations Involving Aeroplane Cargo Compartments (Doc. 10102).

Additional guidance on the conduct of a specific safety risk assessment is contained in the ICAO Safety Management Manual (SMM) (Doc. 9859);

APPENDIX B – Glossary of Acronyms and Terms

Acceptable Means of Compliance (AMC)

Non-binding standards adopted by the CAA to illustrate means to establish compliance with Regulation (EC) No 216/2008 and its Implementing Rules

Aeroplane

In the context of this consultation and as defined in Annex 6, it is a power-driven heavierthan-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Alternative Means of Compliance (AltMOC)

Means that propose an alternative to an existing acceptable means of compliance or those that propose new means to establish compliance with a Regulation.

Annex 6, Part I

ICAO publication containing Standards and Recommended Practices adopted by the International Civil Aviation Organization as the minimum Standards applicable to the operation of aeroplanes by operators authorized to conduct international commercial air transport operations. These international commercial air transport operations include scheduled international air services and non-scheduled international air transport operations for remuneration or hire.

Cargo compartment fire protection

Are considered to be all cargo compartment systems designed to protect the aircraft and its occupants from the effects of a fire and includes systems to detect a fire in the cargo compartment and a means to suppress the fire, using fire extinguishing systems or other means such fire resistant or fire containment devices.

Commercial Air Transport (CAT)

An aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration

Contracting State

A state that is signatory to the Chicago Convention and is a member state of ICAO.

ICAO

International Civil Aviation Organisation.

ICAO SARPS

Standards and Recommended practices published by ICAO in the various Annexes.

Reasonable certainty

Additional guidance is provided in DOC 10102 Chapter 5.3 for what the operator needs to take into consideration and what strategies they can employ to mitigate and address the severity of consequences in the event of a fire. It involves identifying the mechanisms by which fires can be propagated with a special emphasis on those items and combination of

items that can overwhelm the aircraft fire suppression systems. Notwithstanding any other safety considerations that many be necessary, the operator should determine how long the aircraft fire suppression system is effective against possible fire loads and ensure that this duration is greater than divert times for operator route structure or take into considerations additional mitigations that may need to be placed to ensure that the flight can operate safely to a selected diversion or destination.

ICAO Recommended Practice

Any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavour to conform in accordance with the Chicago Convention

Implementing Rules (IR)

Regulatory requirements which must be complied with.

Standard

Any specification for physical characteristics, configuration, matériel, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which Contracting States will conform in accordance with the Chicago Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38.

Supply Chain

all entities involved in the handling of cargo for transport by air with varying responsibilities and include shippers, postal operators, freight forwarders, ground handlers and operators.

Unit load device (ULD)

Any type of cargo container, aircraft container or aircraft pallet with a net, which is designed to restrain cargo in an aircraft cargo compartment during flight.