European Union Aviation Safety Agency

Terms of Reference for rulemaking task

RMT.0599 Issue 2

Update of Subpart FC of Part-ORO (Evidence-based training and other elements)

Subtask 2

OBJECTIVES

The objective of this subtask is the complete review of the provisions contained in Subpart FC of Part-ORO of the Air Operations Regulation whilst ensuring alignment between the Aircrew and the Air Operations Regulation as regards flight crew training requirements.

Competence of personnel is an important enabler of systemic safety and resilience through the implementation of competency-based training and assessment (CBTA) across domains and the promotion of a more evidence-based, data-driven approach to aviation training and assessment.

In today's EU regulatory framework for flight crew licencing (FCL) and operator training, CBTA is implemented only for the multi-crew pilot licence (Part-FCL, Subpart E) and as a substitute to recurrent training and checking (Evidence-based training (EBT) – Part-ORO, Subpart FC, ORO.FC.231).

This subtask will extend CBTA to other parts of the operator's training and to training that directly affects the operator (e.g. operator conversion course, command course, type rating training course), allowing for a single consistent training philosophy within the operator. Consequently, CBTA should be extended beyond the revalidation and renewal of type ratings Appendix 10 – Part-FCL for EBT, and be applied as well to type rating training per Part-FCL Subpart H. Similarly, operator training should be led by CBTA principles beyond the implemented evidence-based recurrent training (ORO.FC.231) to other cases of operator training.

A guiding objective for RMT.0599 is the review and, when appropriate, transposition of the latest developments at ICAO level about CBTA and EBT, in particular Annex 1 and Doc 9868 'Procedures for Air Navigation Services — Training (PANS-TRG)'. RMT.0599 will also consider the latest version of ICAO Doc 9995 and other possible new concepts from ICAO or the industry such as 'competency to tool' approach, etc. In addition, future changes will be considered since the current ICAO PTLP is working on implementing CBTA as an alternative path to all licensing and operator training for aeroplane and helicopter pilots.

RMT.0599 Subtask 2 will have also the objective to review existing rules for EBT and/or CBTA operator training (i.e. ORO.FC.231, ORO.FC.232, ORO.FC.A.245, etc.) and to harmonise them with this new systematic approach and with the provisions of ICAO.

A further objective is to ensure that the complexity of training analysis, training design and training implementation is kept as low as possible, while at the same time fulfilling all dimensions of CBTA. This is to allow industry-wide acceptance of the new regulatory framework while ensuring an effective and efficient implementation of CBTA.

This rulemaking task intends to address all described changes while ensuring at least an equivalent level of safety to that ensured by the current rules.

REGULATIONS INTENDED TO BE AMENDED

— Regulation (EU) No 965/2012
— Regulation (EU) No 1178/2011

RELATED EASA DECISIONS

— AMC and GM to support the implementation of Regulations (EU) Nos 965/2012 and 1178/2011
— Certification Specifications for Operational Suitability Data for Flight Crews (CS-FCD)

AFFECTED STAKEHOLDERS

Pilots; flight instructors; flight examiners; ATOs; air operators; national competent authorities

WORKING METHOD(S)		
Development	**Impact Assessment(s)**	**Consultation**
By EASA with the support of a RMG	Detailed	Public — NPA

PLANNING MILESTONES: See the latest EPAS *Volume II*.

1. OBJECTIVES

1.1. Why we need to amend the rules — issue/rationale

An analysis of global aircraft accidents in recent years continues to highlight that the total number of fatal accidents is decreasing; however, the proportion of such accidents in which human factors are considered a contributing element has remained relatively stable[1].

These findings support the ongoing consensus that enhancing flight safety requires a comprehensive overhaul of pilot training programmes, with a balanced focus on both technical proficiency and non-technical competencies. The International Air Transport Association (IATA) continues to advocate for competency-based and evidence-based training approaches that integrate scenario-based learning and threat and error management (TEM) principles.

At European level, the European Union Aviation Safety Agency (hereinafter referred to as the 'Agency') has since 2014 recognised[2] in the European Plan for Aviation Safety (EPAS)[3] the need for personnel to have the right competencies by adapting the training methods. The 2025 EPAS also identified, as one of the two most significant systemic issues, the need to ensure that aviation personnel have the right competencies and training methods to cope with new challenges.

In light of these considerations, it is also essential to ensure that the analysis, design and implementation of this training remain as simple and accessible as possible to the stakeholders, while still fully addressing all dimensions of CBTA. Achieving this balance is key to fostering broad acceptance of the new regulatory framework across the industry.

Related safety issues

The following safety recommendations, amongst others[4], are derived from specific accident/incident contexts. RMT.0599 will ensure that they are taken into account in the scope of evidence-based training (EBT), either as regards training events during assessment and/or training, i.e. 'equivalence of malfunctions', or through enhancing training for a specific core competency and in the context of the broader review of Subpart ORO.FC:

FRAN-2013-017	The French Accident Investigation Board recommends that EASA, in coordination with manufacturers, operators and major non-European aviation authorities ensure that go-around training integrates instruction explaining the methodology for monitoring primary flight parameters, in particular pitch, thrust then speed.
FRAN-2013-018	The French Accident Investigation Board recommends that EASA, in cooperation with the national civil aviation authorities and major non- European aviation authorities, ensure

1 Flight Safety Foundation – 2024 Safety Report; IATA Annual Safety Report – 2024 Reccomdendations for Accident Prevention

2 'Having the right competencies and adapting training methods is recognised as a key area in the EASp, hence a new systemic threat was created last year to tackle such issues like the increasing pilot reliance on automation, the modernisation of training provisions or the differences in training implementation among States.' (European Aviation Safety Plan 2014–2017)

3 The 'European Aviation Safety Plan' (EASp) has been called from 2016 onwards the 'European Plan for Aviation Safety' (EPAS).

4 New safety recommendations related to this task can be added after the publication of this ToR, if appropriate.

	that during recurrent periodic training, training organizations and operators give greater importance to the assessment and maintenance of the monitoring capabilities of public transport pilots.
FRAN-2013-022	The French Accident Investigation Board recommends that EASA review regulatory requirements for initial and periodic training in order to ensure that go-arounds with all engines operating are performed sufficiently frequently during training.
FRAN-2013-033	The French Accident Investigation Board recommends that EASA, in cooperation with the national civil aviation authorities and major non-European aviation authorities, ensure that the risks associated with dispersion and/or channelized attention during the go-around, to the detriment of the primary flight parameters, be taught to crews.
FRAN-2013-035	The French Accident Investigation Board recommends that EASA, in coordination with manufacturers, operators and major non-European aviation authorities, study whether to extend these measures to other procedures requiring high workload in a short time frame.
FRAN-2015-062	[unofficial translation]: EASA should define the terms on how an operator can set up a risk based training as described in ICAO Doc 9995. [French] [original text] - L'AESA définisse les modalités permettant à un exploitant de mettre en oeuvre la formation basée sur les risques telle que précisée dans le doc OACI 9995 de l'OACI. [Recommandation 2015-062]
NETH-2014-005	To the regulators involved in with the manufacturing of transport category aircraft, European Aviation Safety Agency (Europe), Federal Aviation Administration (FAA), Agencia Nacional de Aviacao (Brasil), Civili Aviation Administration of China, Federal Air Transport Agency (Russian Federation), Japan Civil Aviation Bureau, and Transport Canada. Review the applicable regulations on initial and recurrent flight training to assess whether they adequately address the potential degradation of situational awareness (basic pilot skills) and flight path management due to increased reliance on aircraft automation by flight crews.
IRLD-2014-003	The European Safety Agency should review Council Regulation (EEC) No 3922/91 as amended by Commission Regulation (EC) 859/2008, to ensure that it contains a comprehensive syllabus for appointment to commander and that an appropriate level of command training and checking is carried out.
SPAN-2004-030	It is recommended to EASA that they evaluate the possibility of making mandatory requirements to train flight crew in go-around manoeuvres even from below the decision height, with the aim of reducing the response time when faced with unforeseen events.
SWED-2011-004	It is recommended that EASA: ensure that safe methods to identify and abort an unsafe visual approach, at an earlier stage (ie 300 feet) than that provided in appendix 9, part 4 of the proposed PART – FCL, be included in future training plans for flight training.

AltMoC that have an impact on the development of this RMT

This RMT will review and assess the alternative means of compliance (AltMoC) on the following subjects:

— Alternative use of non-mandatory elements of OSD (ORO.FC.145);

— Reduced volume of hours to complete the operator's EBT programme (ORO.FC.231);

— EBT: Adapted competency model (ORO.FC.231);

— EBT: Grading system (ORO.FC.231);

— Category C aerodrome familiarisation training (ORO.FC.105);

— Aerodrome knowledge for pilots (ORO.FC.105).

ICAO SARPs/PANS and third-country regulatory material relevant to this RMT

The following references will be considered for the alignment of the content of this RMT with ICAO Standards and Recommended Practices (SARPs), Federal Aviation Regulations (FARs), etc.:

— ICAO Annex 1 (Personnel Licensing) to the Chicago Convention on International Civil Aviation, signed at Chicago on 7 December 1944;

— ICAO Annex 6 (Operation of Aircraft) to the Chicago Convention on International Civil Aviation, signed at Chicago on 7 December 1944;

— ICAO Doc 9995 'Manual of Evidence-based Training';

— ICAO Doc 9868 'Procedures for Air Navigation Services — Training (PANS-TRG)', Chapters 5 & 6;

— ICAO Doc 9841 'Manual on the Approval of Training Organizations';

— ICAO Doc 9625 'Manual of Criteria for the Qualification of Flight Simulation Training Devices', Volume 1 — Aeroplanes;

— IATA, IFALPA and ICAO 'Evidence-Based Training Implementation Guide';

— IATA 'Instructor and evaluator training';

— IATA 'manual of competency-based training and assessment';

— IATA 'Data Report for Evidence-Based Training'.

1.2. How we want to achieve the objectives — initial outline of the regulatory material to be developed

The safety priorities identified in the 2025 EPAS are addressed by specific actions in the Agency's rulemaking or safety promotion programmes. In this context, the Agency decided that the introduction of EBT and competency-based training (CBT) was necessary in the field of training and checking. Having in mind that EBT is a CBT programme[5], the Agency planned two separate rulemaking tasks: RMT.0696 'Implementation of evidence-based training within the European regulatory framework', and the current RMT.0599 'Evidence-based and competency-based training' (review of Subpart ORO.FC).

RMT.0599 is divided into three subtasks:

Subtask 1, which included the introduction of EBT and CBTA in the field of recurrent training (*Subtask 1a*) and other training-related implementation issues (*Subtask 1b*), such as better alignment of the requirements for operators and FCL helicopter training. Subtask 1a was completed with the

[5] As stated in ICAO Doc 9995 — Manual of Evidence-based Training, Chapter 6.2 'Instructors — General'.

publication of Regulations (EU) 2020/2036[6] on 9 December 2020 and 2020/2193[7] on 16 December 2020, as well as of ED Decision 2021/002/R[8] on 1 March 2021. Subtask 1b was completed with the publication of ED Decision 2022/014/R[9] on 19 August 2022.

Subtask 2 was then initiated and includes the extension of EBT to other parts of the operator's training or to training that directly affects the operator (e.g. conversion course, command course, type rating training course), allowing for a single training philosophy within the operator. Subtask 2 will reflect the latest developments at ICAO level with regard to EBT and CBTA (e.g. ICAO Doc 9995, PANS TRG, 'competency-to-tool concept', etc.) as well as the experience gained so far with the implementation of EBT in ORO.FC.

In addition, following the experience gained with EBT, various questions and implementation issues received by EASA related to Subpart ORO.FC (in particular ORO.FC.A.245) and other RMTs, the Agency considers appropriate to perform a review of ORO.FC as part of Subtask 2. In addition, any other issues that are considered relevant by the Agency will be reviewed. The RMT will also consider safety promotion activities to support the implementation of the regulatory amendments as well as to complement them with other means of addressing the identified issues.

Subtask 3 will extend EBT to other aircraft types (e.g. helicopters, business jets) allowing for a single training philosophy across the industry.

In addition, it will tackle other implementation issues of the training-related requirements brought to the attention of the Agency.

This RMT is linked to the following safety issues:

— SI-0007 Flight Path Management;

— SI-0009 Crew resource management (CRM);

— SI-0012 Wake vortex;

— SI-0019 Handling and execution of go-arounds;

— SI-0024 Windshear;

— SI-3011 Training effectiveness and competence.

1.3. Other information

Thre is an interdependency of this RMT with the following:

— RMT.0196 Update of the flight simulation training device requirements.

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6 Commission Implementing Regulation (EU) 2020/2036 of 9 December 2020 amending Regulation (EU) No 965/2012 as regards the requirements for flight crew competence and training methods and postponing dates of application of certain measures in the context of the COVID-19 pandemic (OJ L 416, 11.12.2020, p. 24) (http://data.europa.eu/eli/reg_impl/2020/2036/oj).

7 Commission Implementing Regulation (EU) 2020/2193 of 16 December 2020 amending Regulation (EU) No 1178/2011 as regards the requirements for flight crew competence and training methods, and as regards the reporting, analysis and follow-up of occurrences in civil aviation (OJ L 434, 23.12.2020, p. 13) (http://data.europa.eu/eli/reg_impl/2020/2193/oj).

8 ED Decision 2021/002/R - Update of the AMC & GM to Subpart FC of Part-ORO (evidence-based training (EBT)) | EASA

9 ED Decision 2022/014/R - Update of ORO.FC — review of crew training provisions | EASA

— RES.0046 Digital transformation — case studies to prepare the evolution of aviation standards (Final report 2024). The three research case studies aimed to evaluate a series of changes applied to aviation products, processes and operations resulting from the deployment of new digital solutions, with a focus on measuring the impact on safety standards and regulatory material and on preparing for their evolution. The reseach built upon a series of case studies that led to the identification of key actions to be taken by safety regulators, service and solution providers, to streamline the deployment of such innovative digital applications. The case number 3 (refered to as 'Lot 3' in the research documentation) 'Data science applications' was relevant for RMT.0599 as it studied the use of flight training data to support the application of EBT and CBT concepts. In addition, other cases studied 'the application of new techniques for fuel management' and 'data models for enhancing the use of operational or training data for safety' which may also be relevant for RMT.0599.

— Since Subtask 2 may be considered as a precursor of Subtask 3 related to the extension of EBT to other aircraft types (e.g. helicopters, business jets), some preparatory activity may have already started in subject Subtask 2.