



Terms of Reference

for a rulemaking task

Implementation of Evidence-Based Training within the European regulatory framework

RMT.0696 — ISSUE 1 — 3.9.2015

Applicability		Process map	
Affected regulations and decisions:	Decision 2014/017/R (AMC/GM to Part-ORO of Regulation (EU) No 965/2012)	Concept Paper:	No
Affected stakeholders:	Air operators National Aviation Authorities (NAAs)	Rulemaking group:	No (EBT Task Force)
Driver/origin:	Safety	RIA type:	No
Reference:		Technical consultation during NPA drafting:	N/A
		Publication date of the NPA:	N/A
		Duration of NPA consultation:	N/A
		Review group:	EBT Task Force
		Focussed consultation:	Yes
		Publication date of the Opinion:	N/A
		Publication date of the Decision:	2015/Q4



1. Issue and reasoning for regulatory change

The development of the Evidence-Based Training (EBT) arose from an industry-wide consensus that, in order to reduce the aircraft hull loss and fatal accident rates, a strategic review of recurrent training for Commercial Air Transport (CAT) flight crew was necessary. The flight crew training requirements in existing regulations are largely based on the evidence of hull losses from early generation jets. Over time, many new events occurred and the subsequent addition of these events to the training requirements saturated recurrent training and checking programmes and created an inventory or ‘tick box’ approach to training. At the same time, aircraft design and reliability improved substantially, leading to a situation where many accidents occurred with aircraft that were operating without malfunction.

For that reason, ICAO in a joint effort with the International Air Transport Association (IATA), the International Federation of Air Line Pilots’ Associations (IFALPA) and the rest of the industry developed EBT, publishing, amongst others, Doc 9995 ‘Manual of Evidence-based Training’, some amendments to Doc 9868¹ and Doc 9841², and a joint ICAO, IATA and IFALPA publication: ‘Evidence-Based Training Implementation Guide’.

EBT developed a new paradigm for competency-based training and assessment of flight crew, based on evidence. The aim of an EBT programme is to identify, develop and evaluate the key competencies required by flight crew to operate safely, effectively and efficiently in a Commercial Air Transport (CAT) environment, by managing the most relevant threats and errors, based on evidence collected in operations and training. Over the last twenty years, the availability of data covering both flight operations and training activity has improved substantially. The availability of such data has both established the need for the EBT effort and supported the definition of the resulting training concept and curriculum. In short, the aim of EBT (ICAO Doc 9995) is to provide a more effective training focussing on the recurrent training of flight crew, thus increasing the operational safety.

In order to help NAAs and CAT operators to implement ICAO Doc 9995 in the current European regulatory framework, without having to wait the completion of RMT.0599 ‘Review ORO.FC’ — planned to be completed in 2018–2019, the European Aviation Safety Agency (hereinafter referred to as the ‘Agency’) decided to establish an EBT task force composed of representatives of the NAAs and industry, including CAT operators and manufacturers. The EBT Task Force was requested by the Agency to produce reference material for the implementation of EBT (Doc 9995) within the existing regulatory framework³ which already allows for the implementation of the EBT concepts to a large extent and provides a safety net until more experience is gained in the concept.

Finally, the Agency believes that following the standard rulemaking process would delay the safety benefits derived from EBT until 2018–2019. In addition, it is expected that the implementation experience acquired will likely serve to reveal most of the difficulties and inconsistencies that need to be addressed in the current regulation during the subsequent rulemaking task.

¹ Doc 9868 ‘Procedures for Air Navigation Services — Training (PANS-TRG)’

² Doc 9841 ‘Manual on the Approval of Training Organizations’

³ The task only foresees changes at Guidance Material level. Current Implementing Rules and Acceptable Means of Compliance will remain unchanged.



1.1. Rulemaking programme 2014-2017

The [Agency's Revised 2014–2017 Rulemaking programme](#) provides for RMT.0599 'Review of ORO.FC' the following description: 'Evidence-based training taking into account recent ICAO amendments'. In accordance with the above-mentioned Programme, RMT.0599 is planned to end in 2018.

1.2. ICAO amendments

Following the work initiated by Flight Crew Licensing and Training Panel (FCLTP)⁴, in 2006 ICAO published Doc 9868 'Training' — a document that contains procedures for the development and implementation of a competency-based training programme to satisfy the Annex 1⁵ requirements. In 2013, ICAO issued Doc 9995 'Manual of Evidence-based Training' intended to provide guidance to National Aviation Authorities (NAAs), CAT operators and Approved Training Organisations (ATOs) in the recurrent assessment and training of flight crew referred to in Annex 6 'Operation of Aircraft'. Furthermore, amended versions of Doc 9868 'Procedures for Air Navigation Services — Training (PANS-TRG)', and of Doc 9841 'Manual on the Approval of Training Organizations' were also published.

1.3. European Aviation Safety Plan (EASp)

The European Aviation Safety plan (EASp) 2014–2017 identifies the risks and establishes the priorities for the European region. Having the right competences and adapting training methods is recognised as a key area in the EASp (see systemic issues⁶ → Competence of personnel).

The issue is described with the following text: 'The demand for aviation professionals may exceed supply and aviation personnel have to cope with new procedures and increasingly complex technologies'.

The actions established are: 'Evaluate new training methods such as Competency Based Training (CBT), Evidence Based Training (EBT) and distance learning, and adapt as necessary training standards and rules to ensure that the level of safety can only be positively affected'.

1.4. Safety recommendation

One safety recommendation FRAN-2015-023 from BEA was addressed to the Agency regarding EBT:

[...] 'The investigation showed that the crews were not trained or trained adequately in specific procedures such as rejecting a landing below 50 ft or emergency evacuation. Indeed, the training provided was not in line with operational situations encountered in service.

Implementation of training including the principles of evidence-based-training (EBT) should correct these failures by defining programmes that are more appropriate to the risks encountered in operations.

Consequently the BEA recommends that:

⁴ Meeting held in Montreal, from 8 to 19 December 2003.

⁵ International Standards and Recommended Practices ICAO — Annex 1 to the Convention on International Civil Aviation — Personnel Licensing.

⁶ Systemic issues are system-wide problems that affect aviation as a whole. Their association with a particular safety event or circumstance is not always obvious. In most scenarios, they become evident by triggering factors and play a significant role in the development of safety occurrences. (EASp 2014–2017 presentation, page 13)



- **EASA in coordination with the international working groups in charge of implementation of EBT ensure that future training programmes and recurrent training make it possible for crews to better manage the following situations:**
 - managing the energy during transition from the initial and final approach phases;
 - rejecting landings in the flare phase until deployment of the thrust reversers;
 - emergency evacuation (carrying out the first items in order to secure the aeroplane). **[Recommendation FRAN-2015-023]**'.

2. Objectives

To facilitate the implementation of EBT within the existing European regulatory framework by developing Guidance Material (GM) and by ensuring as much as possible alignment with ICAO Doc 9995 'Manual of Evidence-based Training.

3. Activities

The following activities will be performed in coordination with the 'EBT Task Force'⁷:

- Evaluate ICAO Doc 9995 'Manual of Evidence-based Training' against the existing European regulatory framework:
 - Identify which EBT concepts can be directly implemented in the existing European regulatory framework;
 - Identify which EBT concepts would require an amendment of the existing European regulatory framework⁸; and
 - Assess which modifications of the ICAO EBT concept would be required in order to enable a mixed⁹ implementation of EBT.
- Develop GM to enable the implementation of EBT. GM should be developed to Regulation (EU) No 965/2012, Part ORO, Subpart Flight Crew, Section II — Additional requirements for commercial air transport operations, and, if required, to Regulation (EU) No 1178/2011.
 - Develop an Explanatory Note to the GM.
- Develop a Concept Paper on Evidence-Based Training for RMT.0599 'Review of ORO.FC'
 - Possible interface issues with RMT.0194 'Extension of competency-based training to all licences and ratings and extension of TEM principles to all licences and ratings', and RMT.0379 'All weather operations' should be observed.
- Ensure that the GM provides enough clarity to allow a standardised implementation of EBT in all Member States (MS). This activity is to be performed mainly during the focussed consultation.

⁷ EBT Task Force is composed of representatives of EBT of the industry, including airlines and manufacturers as well as helicopters and competent authorities.

⁸ This activity will be finalized during RMT.0599 'Review of ORO.FC' Terms of Reference are expected to be published in the course of the 4th quarter of 2015.

⁹ Implementation of a mixed EBT programme means that some portion of a recurrent assessment and training is dedicated to the application of EBT. This is a means of achieving a phased implementation where, for example, the NAA rules permit such a programme as part of operator specific training and assessment, but preclude such a programme for the revalidation or renewal of pilot licences.



4. Deliverables

An ED Decision is planned to be issued in the course of the 4th Quarter 2015. The ED Decision will provide only GM to Regulation (EU) No 965/2012, Part-ORO, Subpart Flight Crew, Section II — Additional requirements for commercial air transport operations, and, if required, to Regulation (EU) No 1178/2011.

5. Interface issues

Some possible interface issues are:

5.1. RMT.0599 ‘Review of ORO.FC’

Coordination was established to ensure a coherent work will be performed in both tasks (RMT.0696 and RMT.0599). Moreover, a Concept Paper will be developed (see Chapter 3 — Activities).

5.2. RMT.0194 ‘Extension of competency-based training to all licences and ratings and extension of TEM principles to all licences and ratings’

In order to ensure a coherent implementation of competency-based training to all licences, a preliminary study will be performed during the development of the Concept Paper (see Chapter 3 — Activities).

5.3. RMT.0379 ‘All weather operations’

Coordination was established to ensure a coherent work between both tasks.

6. Profile and contribution of the rulemaking group

This is an Agency task and, as a consequence, there is no rulemaking group.

However, the Agency carefully evaluated the composition of the EBT Task Force to ensure a balanced group composition and an appropriate level of expertise¹⁰, such as the participation of a number of NAAs, CAT operators, manufacturers, and pilot associations. In addition, the Agency will also evaluate and develop a balanced group composition for the focussed consultation.

7. Focussed consultation

The focussed consultation is foreseen for September 2015, after the EBT Task Force has delivered a draft GM. During said consultation, a number of selected stakeholders will be consulted during a two-day meeting. Only NAAs and CAT operators not being represented in the EBT Task Force will be involved in the consultation.

The focussed consultation should guarantee an unbiased regulatory text, help to guarantee an evenly geographic distribution and should gather the opinion of the end users, specifically those stakeholders directly affected by this task, such as the NAAs and CAT operators.

Following the focussed consultation, the Agency’s intention is to consult its consultative bodies (RAC/TAC/SSCC) before the ED Decision publication.

¹⁰ This might require the appointment of non-European stakeholders as EBT is indeed a new concept for Europe and the rest of the world.



8. Annex I: Reference documents

8.1. Affected regulations

None

8.2. Affected decisions

Decision 2014/017/R of the Executive Director of the Agency of 24 April 2014 adopting Acceptable Means of Compliance and Guidance Material to Part-ORO of Regulation (EU) No 965/2012 and repealing Decision 2012/017/R of the Executive Director of the Agency of 24 October 2012 — ‘AMC and GM to Part-ORO — Issue 2’

8.3. Reference documents

- ICAO Doc 9995 ‘Manual of Evidence-based Training’
- IATA, IFALPA and ICAO ‘Evidence-Based Training Implementation Guide’
- ICAO Annex 1 – Personnel Licensing
- ICAO Annex 6 – Operations of Aircraft
- ICAO Doc 9841 ‘Manual on the Approval of Training Organizations’
- ICAO Doc 9868 ‘Procedures for Air Navigation Services – Training (PANS-TRG)’, Chapters 5 & 6
- IATA ‘Data Report for Evidence-Based Training’
- ICAO Doc 9625 ‘Manual of Criteria for the Qualification of Flight Simulation Training Devices’, Volume 1 — Aeroplanes

