



EASA

European Aviation Safety Agency

RMT.0581 – UPRT

Acceptable means of compliance & guidance material

FCL focused consultation
30 October 2018

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- **Presentation: point per point (summary)**
- **How to comment?**
 - **„high-level comments“: after every point**
 - **„low-level comments“: written consultation after the workshop**
 - **Comments to christian.kucher@easa.europa.eu, cc to daan.dousi@easa.europa.eu**
 - **Subject: „RMT.0581 comment“**
 - **Deadline: 15 November 2018**



- **Part I: AMC/GM to Part-FCL**
- **Part II: AMC/GM to Part-ORA**
- **Part III: AMC/GM to Annex I (Definitions) of Regulation (EU) No 965/2012**
- **Part IV: AMC/GM to Part-ORO**



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Part I: AMC/GM to Part-FCL

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Overview of new/amended AMC/GM to Part-FCL

FCL.010

Definitions

Abbreviations, UPRT-related definitions

FCL.745.A

Advanced UPRT course – aeroplanes

Content, objectives, exercises

FCL.915(e)

Prerequ./ requirem. for instructors

Qualification for instruction on FCL.745 courses

FCL.920

Instructor competencies & assessment
related to UPRT instruction (FCL.745)



Overview of new/amended AMC/GM to Part-FCL

FCL.905.TRI

TRI privileges and conditions
Instructor competence (for UPRT)

FCL.930.TRI

TRI training course
Instructor competence (for UPRT)

Appendix 3

Training courses for CPL and ATPL
Integration of UPRT

Appendix 5

Training courses for MPL
Integration of UPRT



FCL.010

GM1 (amendment)

- **Abbreviations for AMC/GM to Part-FCL**
 - Abbreviations related to UPRT added
 - Editorial corrections and improvements



FCL.010

GM3 (new)

➤ **UPRT definitions**

- Definitions of terms used in UPRT-related AMC/GM
- Aligned with ICAO definitions (Doc 10011)



FCL.010

GM4 (new)

- **Definitions in GM3 FCL.010 related to the post-stall regime**
 - Clarification: spin definitions in GM3 FCL.010 only relevant for UPRT, not for CAT



FCL.745.A

AMC1 (new)

➤ **Advanced UPRT course**

- **Objective:** To understand how to cope with the physiological and psychological aspects of dynamic upsets in aeroplanes & to build resilience.
- **Theoretical knowledge** – list of essential elements
- **Flight instruction** – list of essential elements
- **Criteria for course completion**



FCL.745.A

GM1 (new)

➤ **Advanced UPRT course**

- Instructor guidance for the conduct of UPRT exercises
- Detailed tables for training exercises
 - Nose-high recovery
 - Nose low recovery
 - Recovery from spiral dive
 - Recovery from stall event
 - Recovery from spin
- Criteria for student assessment



FCL.915(e)

AMC1 (new)

- **Training course for ,FCL.745.A – instructors‘**
 - Course objectives
 - Prerequisites
 - Pre-course assessment
 - Theoretical knowledge and flight instruction (essential elements given)
 - Criteria for course completion



FCL.915(e)

GM1 (new)

- **Training course for ,FCL.745.A – instructors‘**
 - Table 1: Theoretical knowledge
 - Table 2: Practical training exercises



FCL.915(e)

GM2 (new)

- **Training course for ,FCL.745.A – instructors‘**
 - Specific guidance related to **required instructor competence** when conducting exercises on **spin avoidance** and **spin recovery**



FCL.915(e)(2)

AMC1 (new)

- **Refresher course for ,FCL.745.A – instructors‘**
 - Course objective
 - Essential elements of the course
 - Assessment criteria for ATOs



FCL.920

AMC1 (amended)

➤ **Instructor competencies and assessment**

- Updates in the context of UPRT
- References to the ,normal training envelope' (paragraph (f) of new GM1 ORA.ATO.125)



FCL.905.TRI(b)

GM1 (new)

- **TRI/SFI qualification/experience for type-specific UPRT**
 - TRI restricted / SFI: No aeroplane training required
 - Type-specific UPRT: Included in TRI/SFI certificate, no 'add-on' privileges
 - New GM: Recommendations for TRI/SFI to complete the Advanced UPRT course (FCL.745.A)
 - Overall responsibility for appropriate instructor competence (to deliver type-specific UPRT) with the ATO



FCL.930.TRI

AMC1 (amended)

➤ **TRI training related to type-specific UPRT**

- Essential TRI competences necessary for conducting type-specific UPRT during type rating training courses
- Respective training to be integrated in every TRI training course



Appendix 3

AMC1 (amended)

➤ Integration of UPRT into CPL and ATPL courses

- Basic UPRT elements/exercises integrated into all CPL courses as well as the ATP integrated course
 - See AMC2 App 3; AMC1 App 5
- Advanced UPRT course (point FCL.745.A) integrated into the ATP integrated course



Appendix 3 Appendix 5

AMC2 to Appendix 3; AMC1 to Appendix 5 (new)

- **Basic UPRT for ATP integrated, CPL and MPL courses**
 - (a) Table 1: Basic UPRT elements and components
 - (b) Table 2: Manoeuvre-based UPRT exercises
 - (c) Table 3: TEM, pilot core competencies, human factors
 - Pilot competencies: Link to GM2 FCL.735.A (APS MCC)



Appendix 3 Appendix 5

GM1 to Appendix 3; Appendix 5 (new)

- **Basic UPRT exercises (further guidance)**
 - UPRT with reference to instruments
 - Instructor qualification
 - OEM recommendations
 - Tables with templates for:
 - Stall event recovery
 - Nose-high recovery
 - Nose-low recovery



Appendix 3

GM1 (new)

- **Grading system for basic UPRT exercises**
 - Link to GM3 FCL.735.A (grading system of APS MCC course)



Appendix 5

GM1 (amended)

➤ MPL training scheme

- Updated in the context of new UPRT requirements



Appendix 9

GM1 (new)

➤ **Type-specific UPRT in FSTD**

- Further guidance on type-specific UPRT exercises
- Templates for:
 - Stall event recovery (Table 1)
 - Nose-high recovery (Table 2)
 - Nose-low recovery (Table 3)
- Guidance on go-around training



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ORA.ATO.125

AMC2 (amended)

➤ **Type rating training**

- Paragraph (k)(1) – Landing training
 - One go-around included
- Paragraph (k)(2) – ZFTT
 - Editorial errors corrected (list restructured)
- New Paragraph (k)(3)
 - Reference to ,normal training envelope‘ (see GM1 ORA.ATO.125)



ORA.ATO.125

AMC2 (amended)

➤ **Type rating training**

- New paragraph (Ia) – Type-specific UPRT
 - Elements and components (as in AMC2 App 3; AMC1 App5 as well as AMC1 ORO.FC.220&230)
- New paragraph (Ib) – Unreliable airspeed training
 - Table from EASA SIB 2015-17R1 (training elements)



ORA.ATO.125

GM1 (new)

- **Type rating training – UPRT – further guidance**
 - Human factors
 - Development of training scenarios
 - Reference to ICAO Doc 10011, AUPRTA and Flight Safety Foundation publications for further guidance
 - Training platform (aeroplanes)
 - **Normal training envelope (aeroplane & FSTD)**
 - FSTD training envelope
 - Aircraft limitations



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Part III: AMC/GM to Annex I (Definitions) to Regulation (EU) No 965/2012

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Annex I

GM15 (amended)

➤ **UPRT definitions updated**

- ,Aeroplane upset prevention and recovery training‘
- ,Aeroplane upset‘
- New: ,FSTD training envelope‘



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ORO.FC.120

ORO.FC.130

AMC1 (new)

- **Operator conversion and recurrent training & checking**
 - Unreliable airspeed training (EASA SIB 2015-17R1) – Table with training elements



ORO.FC.220

ORO.FC.230

AMC1 (amended)

➤ **Operator conversion and recurrent training & checking**

➤ Table 1:

- Corrections made
- Reference to Part-FCL GM regarding go-around training



ORO.FC.220

ORO.FC.230

AMC3 (new)

- **Operator conversion and recurrent training & checking**
 - Reference to new AMC1 ORO.FC.120&130 (unreliable airspeed training)



ORO.FC.220

ORO.FC.230

GM1 (amended)

- **Operator conversion and recurrent training & checking**
 - Additional guidance regarding the ,normal training envelope‘
 - References to revision 2 and 3 of AURTA and a Flight Safety Foundation Publication for further guidance



ORO.FC.220

ORO.FC.230

GM3 (amended)

- **Operator conversion and recurrent training & checking**
 - References to AURTA/AUPRTA updated



ORO.FC.220

ORO.FC.230

GM5 (amended)

- **Operator conversion and recurrent training & checking**
 - Instructor competencies
 - Reference to the FSTD training envelope added



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Questions?

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