COMPLIANCE CHECKLIST\*

**Change**

**AMC/GM**

**Upset prevention and recovery training**

**Part-ORO**

Version 2016-03-10

COMMISSION REGULATION (EU) No 965/2012

of 5 October 2012

**Updated with:**

**ED Decision 2015/12/R – In force 04 May 2016.**

|  |  |
| --- | --- |
| Name of organisation |  |
| AOC reference |  |
| Audit reference | TSL |
| TSL Audit staff |  |
| Signature |  |

Realated documents:

<https://easa.europa.eu/regulations> → Air Operations → ORO → 04/05/2015 (Date public)

* ED Decision 2015-012-R (Formellt EASA beslut och omfattning)
* ED Decision 2015-012-R - Explanatory Note (Summerande text, målbild, läs först)
* Annex I to ED Decision 2015-012-R (Guidance Materiel GM Definitioner)
* Annex II to ED Decision 2015-012-R (AMC/GM förändrad text)

<https://www.transportstyrelsen.se/sv/luftfart/Seminarier-och-information/Flygchefer/>

* Presentation seminarie 12 nov 2015

See also reference document list mom 3.3 in explanatory note above.

* i.e ICAO Doc 10011 ‘Manual on Aeroplane Upset Prevention and Recovery Training’

|  |
| --- |
| The operator is always responsible for keeping updated list of Implementing rules with the Acceptable Means of Compliance, AMC, and Guidance Material, GM, as relevant for the operation. |

Overview of the amendment

This Decision contains the following amendments:

a) ‘AMC1 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

b) ‘AMC2 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

c) ‘GM1 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

d) ‘GM2 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

e) ‘GM3 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

f) ‘GM4 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

g) ‘GM5 ORO.FC.220&230 Command course & Operator conversion training and checking & Recurrent training and checking’ has been added.

h) ‘GM1 ORO.FC.105 (b)(2) Route and Aerodrome knowledge’ has been added.

i) ‘GM11 Annex I Definitions’ has been added.

How to use Compliance Checklist (CCL)

The objective of this Compliance Checklist is to support operators compliance statement with the rules and when creating an Operations Manual. Operator is responsible to keep updated list of implementing rules with related AMC and GM. The Compliance Checklist is sorted as the rules, while the Operations Manual will be presented in a more structured way as described in ORO.MLR.100 with associated AMC 1-3.

Every rule reference here is followed by a box where the operator, in the first column, shall state where in the Operations Manual the subject is described. It will not be acceptable with just “OM-A” or “OM-A chapter 3”; the reference must be to the detailed level to facilitate the review.

|  |  |  |
| --- | --- | --- |
| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |

Where the AMC/GM present table (example below), the operator state OM reference in assigned column at each element in table.

**Example Table 1: Elements and respective components of upset prevention training**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Elements and components** | | **Ground**  **Training** | **Manual reference** | **FSTD/**  **Aeroplane**  **training** | **Manual reference** |
| **A.** | **Aerodynamics** |  |  |  |  |
| **1.** | General aerodynamic characteristics | **●** |  | **N/A** | **N/A** |
| **2.** | Aeroplane certification and limitations | **●** |  | **N/A** | **N/A** |

\*Note: Disclaimer: This document is meant as an aid for operators to comply with the applicable rules. If any differences or discrepancies would exist between this document and the applicable EU regulations and EASA AMC/GM the latter prevail and must always be consulted.

\*\* Note: The right hand part of each box above to be completed by SCAA with one of four indicators:

1. **C** means Compliance;

2. **N/A** means that the rule is Not Applicable to the reviewed activity;

3. **N/R** means the rule is applicable but Not Reviewed;

4. **R** means Remark.

Annex I to ED Decision 2015/012/R

**GM12 Annex I Definitions**

UPSET PREVENTION AND RECOVERY TRAINING (UPRT) DEFINITIONS

See GM12 text in Annex I to ED Decision 2015-012-R (AMC/GM förändrad text)

|  |  |  |
| --- | --- | --- |
| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**AMC1 ORO.FC.220&230 Operator conversion training and checking & recurrent training and checking**

UPSET PREVENTION AND RECOVERY TRAINING (UPRT) FOR COMPLEX MOTOR-POWERED AEROPLANES WITH A MAXIMUM OPERATIONAL PASSENGER SEATING CONFIGURATION (MOPSC) OF MORE THAN 19.

(a) Upset prevention training should:

(1) consist of ground training and flight training in an FSTD or an aeroplane;

(2) include upset prevention elements from Table 1 for the conversion training course; and

(3) include upset prevention elements in Table 1 for the recurrent training programme at least every 12 calendar months, such that all elements are covered over

a period not exceeding 3 years.

Operator: Enter Manual Reference for training item marked ●

**Table 1: Elements and respective components of upset prevention training**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Elements and components** | | **Ground**  **Training** | **Manual reference** | **FSTD/**  **Aeroplane**  **training** | **Manual reference** |
| **A.** | **Aerodynamics** |  |  |  |  |
| **1.** | General aerodynamic characteristics | **●** |  |  |  |
| **2.** | Aeroplane certification and limitations | **●** |  |  |  |
| **3.** | Aerodynamics (high and low altitudes) | **●** |  | **●** |  |
| **4.** | Aeroplane performance (high and low altitudes) | **●** |  | **●** |  |
| **5.** | Angle of attack (AOA) and stall awareness | **●** |  | **●** |  |
| **6.** | Stick shaker or other stall-warning device activation (as applicable) | **●** |  | **●** |  |
| **7.** | Stick pusher (as applicable) | **●** |  | **●** |  |
| **8.** | Mach effects (if applicable to the aeroplane type) | **●** |  | **●** |  |
| **9.** | Aeroplane stability | **●** |  | **●** |  |
| **10.** | Control surface fundamentals | **●** |  | **●** |  |
| **11.** | Use of trims | **●** |  | **●** |  |
| **12.** | Icing and contamination effects | **●** |  | **●** |  |
| **13.** | Propeller slipstream (as applicable) | **●** |  | **●** |  |
| **B.** | **Causes of and contributing factors to upsets** |  |  |  |  |
| **1.** | Environmental | **●** |  | **●** |  |
| **2.** | Pilot-induced | **●** |  | **●** |  |
| **3.** | Mechanical (aeroplane systems) | **●** |  | **●** |  |
| **C.** | **Safety review of accidents and incidents relating to aeroplane upsets** |  |  |  |  |
| **1.** | Safety review of accidents and incidents relating to aeroplane upsets | **●** |  | **●** |  |
| **D.** | **g-load awareness and management** |  |  |  |  |
| **1.** | Positive/negative/increasing/decreasing g-loads | **●** |  | **●** |  |
| **2.** | Lateral g awareness (sideslip) | **●** |  | **●** |  |
| **3.** | g-load management | **●** |  | **●** |  |
| **E.** | **Energy Management** |  |  |  |  |
| **1.** | Kinetic energy vs potential energy vs chemical energy (power) | **●** |  | **●** |  |
| **F.** | **Flight path management** |  |  |  |  |
| **1.** | Relationship between pitch, power and performance | **●** |  | **●** |  |
| **2.** | Performance and effects of differing power plants (if applicable) | **●** |  | **●** |  |
| **3.** | Manual and automation inputs for guidance and control | **●** |  | **●** |  |
| **4.** | Type-specific characteristics | **●** |  | **●** |  |
| **5.** | Management of go-arounds from various stages during the approach | **●** |  | **●** |  |
| **6.** | Automation management | **●** |  | **●** |  |
| **7.** | Proper use of rudder | **●** |  | **●** |  |
| **G.** | **Recognition** |  |  |  |  |
| **1.** | Type-specific examples of physiological, visual and instrument clues during developing and developed upsets | **●** |  | **●** |  |
| **2.** | P itch/power/roll/yaw | **●** |  | **●** |  |
| **3.** | Effective scanning (effective monitoring) | **●** |  | **●** |  |
| **4.** | Type-specific stall protection systems and cues | **●** |  | **●** |  |
| **5.** | Criteria for identifying stalls and upsets | **●** |  | **●** |  |
| **H.** | **System Malfunction**  (including immediate handling and subsequent operational considerations, as applicable) |  |  |  |  |
| **1.** | Flight control defects | **●** |  | **●** |  |
| **2.** | Engine failure (partial or full) | **●** |  | **●** |  |
| **3.** | Instrument failures | **●** |  | **●** |  |
| **4.** | Loss of reliable airspeed | **●** |  | **●** |  |
| **5.** | Automation failures | **●** |  | **●** |  |
| **6.** | Fly-by-wire protection degradations | **●** |  | **●** |  |
| **7.** | Stall protection system failures including icing alerting systems | **●** |  | **●** |  |
| **I.** | **Manual handling skills**  (no autopilot, no autothrust/autothrottle and, where possible, without flight directors) |  |  |  |  |
| **1.** | Flight at different speeds, including slow flight, and altitudes within the full normal flight envelope |  | **N/A** | **●** |  |
| **2.** | Procedural instrument flying and manoeuvring including instrument departure and arrival |  | **N/A** | **●** |  |
| **3.** | Visual approach |  |  | **●** |  |
| **4.** | Go-arounds from various stages during the approach |  |  | **●** |  |
| **5.** | Steep turns |  |  | **●** |  |

(b) Upset recovery training should:

(1) consist of ground training and flight training in an FFS qualified for the training task;

(2) be completed from each seat in which a pilot’s duties require him/her to operate; and

(3) include the recovery exercises in Table 2 for the recurrent training programme, such that all the exercises are covered over a period not exceeding 3 years.

Operator: Enter Manual Reference for trining item marked ●

**Table 2: Exercises for upset recovery training.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Exercises** | | **Ground**  **Training** | **Manual reference** | **FSTD/**  **Aeroplane**  **training** | **Manual reference** |
| **A.** | **Recovery from developed upsets** |  |  |  |  |
| **1.** | Timely and appropriate intervention | **●** |  | **●** |  |
| **2.** | Recovery from stall events, in the following configurations;  — take-off configuration,  — clean configuration low altitude,  — clean configuration near maximum operating altitude,  and  — landing configuration during the approach phase. | **●** |  | **●** |  |
| **3.** | Recovery from nose high at various bank angles | **●** |  | **●** |  |
| **4.** | Recovery from nose low at various bank angles | **●** |  | **●** |  |
| **5.** | Consolidated summary of aeroplane recovery techniques | **●** |  | **●** |  |

**AMC2 ORO.FC.220&230 Operator conversion training and checking & recurrent training and checking**

*(See also definition for Complex Motor-Powered Aeroplanes)*

UPSET PREVENTION AND RECOVERY TRAINING (UPRT) FOR COMPLEX MOTOR-POWERED AEROPLANES WITH A MAXIMUM OPERATIONAL PASSENGER SEATING CONFIGURATION (MOPSC) OF 19 OR LESS.

(a) Upset prevention training should:

(1) consist of ground training and flight training in an FSTD or an aeroplane;

(2) include upset prevention elements in Table 1 of AMC1 ORO.FC.220&230 for the conversion training course; and

(3) include upset prevention elements in Table 1 of AMC1 ORO.FC.220&230 for the recurrent training programme at least every 12 calendar months, such that all the elements are covered over a period not exceeding 3 years.

(b) Upset recovery training should:

(1) consist of ground training and flight training in an FFS qualified for the training task, if available;

(2) be completed from each seat in which a pilot’s duties require him/her to operate; and

(3) include the recovery exercises in Table 2 of AMC1 ORO.FC.220&230 for the recurrent training programme, such that all the exercises are covered over a period not exceeding 3 years.

(c) The operator should ensure that personnel providing FSTD UPRT are competent and current to deliver the training, and understand the capabilities and limitations of the device used.

(d) The FFS qualification requirements in (b)(1) are further specified in the Guidance Material (GM).

|  |  |  |
| --- | --- | --- |
| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**GM1 ORO.FC.220&230 Operator conversion training and checking & recurrent training and checking**

UPSET PREVENTION AND RECOVERY TRAINING (UPRT) FOR COMPLEX MOTOR-POWERED AEROPLANES

See GM1 text in Annex II to ED Decision 2015-012-R (AMC/GM förändrad text)

|  |  |  |
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| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**GM2 ORO.FC.220&230 Operator conversion training and checking & recurrent training and checking**

See GM2 text in Annex II to ED Decision 2015-012-R (AMC/GM förändrad text)

|  |  |  |
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| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**GM3 ORO.FC.220&230 Operator conversion training and checking & Recurrent training and checking**

UPSET RECOVERY TRAINING FOR COMPLEX MOTOR-POWERED AEROPLANES

See GM3 text in Annex II to ED Decision 2015-012-R (AMC/GM förändrad text)

Including template 1-3, recommended training structure

|  |  |  |
| --- | --- | --- |
| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**GM4 ORO.FC.220&230 Operator conversion training and checking & recurrent training and checking**

FFS QUALIFIED FOR THE UPSET RECOVERY TRAINING TASK

See GM4 text in Annex II to ED Decision 2015-012-R (AMC/GM förändrad text)

|  |  |  |
| --- | --- | --- |
| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**GM5 ORO.FC.220&230 Operator conversion training and checking & recurrent training and checking**

PERSONNEL PROVIDING FSTD UPSET PREVENTION AND RECOVERY TRAINING (UPRT)

See GM5 text in Annex II to ED Decision 2015-012-R (AMC/GM förändrad text)

|  |  |  |
| --- | --- | --- |
| State how and where the rule is implemented – Ref. to OM  (If the rule is Not Applicable state N/A) | SCAA notes | **\*\***  Assessment |
|  |  |  |

**-END-**