

# OZAEROS UPRT – Upset Prevention and Recovery Training

## Introduction

The information in this document is aimed at flight schools which want to conduct their own UPRT courses or for individuals who want to understand the UPRT requirements.

David initiated UPRT training for airline cadets in 2010 and has recently developed and delivered courses conforming to the new EASA requirements for basic and advanced UPRT.

It is worthwhile looking at this FAA summary of the differences between UPRT and aerobatics:

Aerobatics vs. UPRT Flight Training Methods		
ASPECT OF TRAINING	AEROBATICS	UPSET PREVENTION AND RECOVERY TRAINING
Primary Objective	Precision maneuvering capability	Safe, effective recovery from aircraft upsets
Secondary Outcome	Improved manual aircraft handling skills	Improved manual aircraft handling skills
Aerobatic Maneuvering	Primary mode of training	Supporting mode of training
Academics	Supporting role	Fundamental component
Training Resources Utilized	Aircraft (few exceptions)	Aircraft or a full-flight simulator

An aerobatic course would take someone only part way through a UPRT course and is not a substitute for it. All pilots should undergo a basic UPRT course as outlined below and this would be a short add-on to an aerobatic course or as a stand-alone short course.

The advanced UPRT course is aimed at jet transport pilots.

Start with the ICAO documents, especially Doc. 10011 at [Upset Prevention and Recovery Training Provisions \(icao.int\)](https://www.icao.int/publications/Documents/10011/maindoc10011.pdf)

The EASA rules are available online and the following notes will guide you through the relevant sections. [https://www.easa.europa.eu/sites/default/files/dfu/Easy\\_Access\\_Rules\\_for\\_Part-FCL-Aug20.pdf](https://www.easa.europa.eu/sites/default/files/dfu/Easy_Access_Rules_for_Part-FCL-Aug20.pdf) Other regulatory authorities are lagging EASA at this stage so that's the only overarching set of requirements that many are now undertaking.

[EASA Basic UPRT - Explanatory Note to Decision 2019/005/R](#)

**Basic UPRT: The definition of 'basic UPRT' is included in order to distinguish the exercises integrated into training courses for the issue of a CPL, an MPL or an airline transport pilot licence (ATPL) and which do not require specific additional instructor qualifications as the case is for the 'advanced UPRT' course required by point FCL.745.A (see the new point FCL.915(e)).**

The new **GM1 to Appendix 3; Appendix 5** contains further information and guidance on basic UPRT and stall training and clarifies that flight instructors are not required to hold any additional qualifications to conduct this training. However, ATOs are responsible for ensuring proper competence and standardisation of their instructors before assigning particular training responsibilities to them. It is therefore expected that ATOs provide additional training necessary for delivering basic UPRT to a good standard. Additionally, the recommended recovery strategies to be used during basic UPRT and stall event training are described (tables with templates). The recommended recovery strategies are derived from the AUPRTA. These recommended recovery strategies are suitable for most aeroplane types and use of these strategies will minimise the risk of

negative transfer of training for students who go on to operate different aircraft types. ***It remains the responsibility of the ATO to ensure that the strategies used during basic UPRT are appropriate and to verify that they are compatible with any procedures published by the manufacturers of the training aircraft used.*** Basic UPRT and stall event training may involve operation across a wider range of airspeeds, g-loads and aircraft attitudes than other parts of the training course. This needs to be considered by the ATO when defining the training envelope for a particular training course (see ORA.ATO.125 point (f)).

AMC2 to Appendix 3; AMC1 to Appendix 5 BASIC UPRT FOR AEROPLANE ATP INTEGRATED, CPL/IR INTEGRATED, CPL INTEGRATED AND CPL MODULAR COURSES AS WELL AS MPL COURSE PHASES 1 TO 3 – introduces basic UPRT briefings and flight training with specific exercises.

Consider the ATP integrated course as an example.

Phase 1:

Exercises ***up to the first solo flight*** comprise a total of at least 10 hours dual flight instruction on an SE aeroplane including:

(v) ***the basic UPRT exercises as specified in point (b) of AMC2 to Appendix 3; AMC1 to Appendix 5;***

Phase 4:

Exercises up to the instrument rating skill test comprise:

(v) in-flight manoeuvres and specific flight characteristics ***and the basic UPRT exercises*** as specified in Sections A, B, C and D of Table 2 in point (b) of AMC2 to Appendix 3; AMC1 to Appendix 5;

#### USA FAA Basic UPRT

Chapter 4 of the FAA's Airplane Flying Handbook, FAA-H-8083-3B, was rewritten a few years ago and renamed "Maintaining Aircraft Control: Upset Prevention and Recovery Training. This is available free online at [Airplane Flying Handbook \(FAA-H-8083-3B\) Chapter 4](#) Essential reading for all pilots!

#### EASA AMC1 FCL.745.A Advanced UPRT Course

The rules are fairly straightforward:

- 5 hours of theoretical knowledge instruction
- 3 hours of dual flight instruction with a flight instructor qualified in accordance with FCL.915(e) and consisting off advanced UPRT in an aeroplane qualified for the training task

GM1 FCL.745.A Advanced UPRT Course describes the upset recovery training exercises. Specific exercises are:

1. Nose HIGH recovery
2. Nose LOW recovery
3. Recovery from spiral dive
4. Stall event recovery
5. Recovery from spin

To clarify – the spin recovery is from an incipient spin which EASA clearly defines (for the purpose of this training) – it is an uncommanded roll in excess of 45° and limited to ½ turn.

EASA has specific requirements for their UPRT instructors per FCL.915(e):

- At least 500 hours flight time including 200 hours of flight instruction
- A UPRT instructor training course
- Annual currency or refresher training requirements
- Instructors delivering the UPRT instructor course to have 25 hours experience in delivering advanced UPRT training
- Significantly, the UPRT instructor course includes "ability to recover from all spin types, not only from spins entered intentionally, but from spins of unannounced direction of autorotation, and from all potential spin variations, including:
  - i. normal (non-aggravated) spins;
  - ii. flat spins;
  - iii. accelerated spins; and
  - iv. transition spins (incorrect recovery resulting in reversal of rotation)."

Training material is available free online. The source of much of this material is the Airplane Upset Recovery Training Aid, Revision 2 (November 2008) at [https://flightsafety.org/wp-content/uploads/2016/09/AP\\_UpsetRecovery\\_Book.pdf](https://flightsafety.org/wp-content/uploads/2016/09/AP_UpsetRecovery_Book.pdf)

See also Rev 3 at <https://www.icao.int/safety/loci/auprta/index.html>