

UPRT PHASED TRAINING PROGRAM

As of May 2016, EASA requires all operators to incorporate upset awareness, prevention and recovery (UPRT) into their pilot training programs. This document outlines the specific UPRT topics and elements necessary to be incorporated into the existing phased recurrent training footprint imposed by ED Decision 2015/12/R. [Elevate your training.](#)

PHASE A (2017 / 2020 / 2023)

GROUND SCHOOL (3 HOURS)

AERODYNAMICS

General aerodynamic characteristics

Aeroplane certification and limitations

Aerodynamics

Aeroplane performance

Angle of attack (AOA) and stall awareness

Stick shaker or other stall-warning device activation (as applicable)

Mach effects (if applicable to the aeroplane type)

Aeroplane stability

Control surface fundamentals

CAUSES OF AND CONTRIBUTING FACTORS TO UPSETS

Environmental

Pilot-induced

Mechanical (aeroplane systems)

SAFETY REVIEW OF ACCIDENTS AND INCIDENTS

Safety review of accidents and incidents relating to aeroplane upsets

G-LOAD AWARENESS AND MANAGEMENT

Positive / negative / increasing / decreasing G-loads

G-load management

ENERGY MANAGEMENT

Kinetic energy vs. potential energy vs. chemical energy (power)

FLIGHT PATH MANAGEMENT

Relationship between pitch, power and performance

Performance and effects of differing power plants (if applicable)

Manual and automation inputs for guidance and control

Automation management

Proper use of rudder

RECOGNITION

Type-specific examples of physiological, visual and instrument clues during upsets

Pitch / power / roll / yaw

Effective scanning (effective monitoring)

Type-specific stall protection systems and cues

Criteria for identifying stalls and upsets

SYSTEM MALFUNCTION

Flight control defects

Engine failure (partial or full)

Loss of reliable airspeed

Fly-by-wire protection degradations

Stall protection system failures including icing alerting systems

SIM SESSION (2 HOURS)

HIGH ALTITUDE UPRT HANDLING

Climb techniques

Manual flight at high altitude (without flight director)

Mach tuck (if applicable)

Dutch roll (if applicable)

Immediate descent required due to temperature increase

High altitude approach to stall and recovery

Engine failure during cruise

Oceanic diversion procedures or emergency descent

PHASE B (2018 / 2021 / 2024)

GROUND SCHOOL (3 HOURS)

AERODYNAMICS

- General aerodynamic characteristics
- Aeroplane certification and limitations
- Aerodynamics
- Aeroplane performance
- Angle of attack (AOA) and stall awareness
- Stick shaker or other stall-warning device activation (as applicable)
- Stick pusher (as applicable)
- Aeroplane stability
- Icing and contamination effects

CAUSES OF AND CONTRIBUTING FACTORS TO UPSETS

- Environmental
- Pilot-induced

SAFETY REVIEW OF ACCIDENTS AND INCIDENTS

- Safety review of accidents and incidents relating to aeroplane upsets

G-LOAD AWARENESS AND MANAGEMENT

- Positive / negative / increasing / decreasing G-loads
- Lateral G awareness (sideslip)
- G-load management

ENERGY MANAGEMENT

- Kinetic energy vs. potential energy vs. chemical energy (power)

FLIGHT PATH MANAGEMENT

- Relationship between pitch, power and performance
- Manual and automation inputs for guidance and control
- Type-specific characteristics
- Management of go-arounds from various stages during the approach

RECOGNITION

- Type-specific examples of physiological, visual and instrument clues during upsets
- Pitch / power / roll / yaw
- Effective scanning (effective monitoring)
- Type-specific stall protection systems and cues
- Criteria for identifying stalls and upsets

SYSTEM MALFUNCTION

- Fly-by-wire protection degradations
- Stall protection system failures including icing alerting systems

SIM SESSION (2 HOURS)

LOW ALTITUDE UPRT HANDLING

- | | |
|------------------------------------------------------------------|--------------------------------------------------------|
| Takeoff and departure | Unusual attitude recoveries |
| Steep turns | Hold using heading / time method |
| Slow flight below VMD | Non-precision approach to a go-around at 1000 feet AGL |
| Approaches to stall in clean, take-off and landing configuration | ILS to a full-stop landing |
| Stick pusher demo (if applicable) | |

PHASE C (2016 / 2019 / 2022)

GROUND SCHOOL (3 HOURS)

AERODYNAMICS

- General aerodynamic characteristics
- Aeroplane certification and limitations
- Aerodynamics
- Aeroplane performance
- Angle of attack (AOA) and stall awareness
- Stick shaker or other stall-warning device activation (as applicable)
- Stick pusher (as applicable)
- Mach effects (if applicable to the aeroplane type)
- Aeroplane stability
- Control surface fundamentals
- Use of trims
- Icing and contamination effects
- Propeller slipstream (as applicable)

CAUSES OF AND CONTRIBUTING FACTORS TO UPSETS

- Environmental
- Pilot-induced
- Mechanical (aeroplane systems)

SAFETY REVIEW OF ACCIDENTS AND INCIDENTS

- Safety review of accidents and incidents relating to aeroplane upsets

G-LOAD AWARENESS AND MANAGEMENT

- Positive / negative / increasing / decreasing G-loads
- Lateral G awareness (sideslip)
- G-load management

ENERGY MANAGEMENT

- Kinetic energy vs. potential energy vs. chemical energy (power)

FLIGHT PATH MANAGEMENT

- Relationship between pitch, power and performance
- Performance and effects of differing power plants (if applicable)
- Manual and automation inputs for guidance and control
- Type-specific characteristics
- Management of go-arounds from various stages during the approach
- Automation management
- Proper use of rudder

RECOGNITION

- Type-specific examples of physiological, visual and instrument clues during upsets
- Pitch / power / roll / yaw
- Effective scanning (effective monitoring)
- Type-specific stall protection systems and cues
- Criteria for identifying stalls and upsets

SYSTEM MALFUNCTION

- Flight control defects
- Engine failure (partial or full)
- Instrument failures
- Loss of reliable airspeed
- Automation failures
- Stall protection system failures including icing alerting systems

SIM SESSION (2 HOURS)

PERFORMANCE LIMITED UPRT HANDLING

RTO on limiting length runway	Engine relight
EFATO on limiting TOD runway	Handling at maximum takeoff mass
EFATO obstacle limited with emergency turn procedure in VMC	ILS to a balked landing below 50 feet AGL
Fuel dumping (if applicable)	Approach with go-around prior to FAF
Asymmetric handling – manual no FD	Visual circuit